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PERSPECTIVES IN VOCATIONAL AND TECHNICAL EDUCATION

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Chapter Seven

REDEFINING THE CHALLENGES POSED BY VOCATIONAL AGRICULTURAL EDUCATION FOR SUSTAINABLE LIVELIHOODS IN NIGERIA

By

Edwards Adeseye Alademerin

Introduction

At this conference, we must all put our heads together and not deviate from the major focus, which is the conference theme. From this, two questions are begging for answers – (i) What are the challenges? And (ii) How do we redefine the challenges: in the Vocational and Technical Education in Nigeria. It is my believe that at the end of various paper presentations, the answers to the questions will emerge. As one of the lead presenters, I have rearranged and merged the various sub-themes that are related to Vocational Agricultural Education so that each will dovetail into one another. They in combination form the title and sub-titles of this presentation.

Three days of debate can hardly be enough given the calibre of the expected conferees but we have to make do with whatever time is available.

Plato in his book, *The Republic*, wrote, "...some will then be chosen for higher privilege. The studies which they pursued without order in their early years will now be brought together, and the students will see the relationship of these studies to one another and to truth". "Yes", he said. "That is the only kind of knowledge which takes lasting root". This kind of knowledge that takes lasting root is the one that meets our needs and guarantees our survival in the society which we live in.

Vocational education programmes are intended to serve the needs of all persons in all communities who want, need, and can benefit from such programmes. It nourishes the mind and spirit of an individual in relation to training which is practical and involving a combination of knowledge, manipulative skills and standards. The United States office of Education (1937) defined Vocational Education more aptly when it wrote; "Vocational Education has reference to training for useful employment in trade and industrial, agricultural, business, home making, vocational-technical..." The primary purpose of vocational education programmes offered in the public and private schools all over the world is to provide the students with the necessary skills, attitudes, abilities, knowledge, safe work habits, and proper appreciations, necessary to enter employment in recognised occupations, as either wage earners or entrepreneurs and to succeed and advance in that employment. It is recognised that students enrol in vocational education programmes for a variety of reasons, including personal improvement, avocational interest, and development of skills for personal reasons.

The foundation blocks, on which a sound and defensible philosophy for vocational education have been built, were developed over a long period of time since the days of early men. The early men used primitive implements to trap terrestrial and aquatic animals, hunt for wild animals, also, for tilling the soil during cultivation of crops. The American Morrill Act of 1862 signed by President Lincoln for the "promotion of liberal and practical education of the industrial classes in the several pursuits and professions of life" marked the turning point which later metamorphosed

into the modern day vocational education through several modifications.

According to Aguisiobo (1988), the Morrill Land Act provided grants of land to support and maintain state colleges devoted to agricultural and mechanic arts. These institutions provided leadership, training, and research in legally assigned fields that have proved of great importance to the growth of the American nation. He indicated further how the Morrill Act induced a major redirection in the pattern of American education thus:

- A liberal and practical education was prescribed and both were to be accommodated without any sense of inferiority.
- It opened the doors of higher education to all and education for the elites was cancelled.
- The act gave important status to mechanic arts and agriculture with useful practical as the main background. Science was to be taught, not just for its own sake, but as an instrument for moulding the societal environment.
- It broke through the suspicion and fears of education of farmers and businessmen.
- The role of agriculture was immediately recognised and accepted as vital to the national welfare and a spur to economic growth.

The major direction in the American education system is still propelling them till today as a world leader in all areas of development.

The modern day term of "Vocational Education" did not come into prominence until near the beginning of the last century in the United States of America. This was after the enactment of the Smith-Hughes Legislation in 1917. The Legislation provided for a national programme in which the Federal, state and Local Government cooperate and give grants to promote vocational education and training to meet the needs of the first world war. The United States Chamber of Commerce facilitated the passing of the Act. The national grants given to vocational education facilitated the speedy development. Salaries of vocational educators were very attractive to serve as incentives to able-bodied men and women.

According to Milton and Ivan (1976), during the period of time from 1917 until 1963, vocational education experienced only modest growth in enrolment and in the amount of fund expended for it; it was largely centred in agricultural education, home economics education, and trade and industrial education. Programmes at state and local levels were administered largely by persons well trained and committed to a sound basic philosophy of vocational education espoused by the early leaders.

They went further to indicate that with the enactment of the Vocational Education Act of 1963, relatively large amounts of funds, federal, state and local funds became available for supporting vocational education programmes. All vocational education programmes and especially the newer services (Business and Office Education, Technical Education, Health Occupations, Distributive Education) experienced phenomenal growth. New and vibrant young leadership emerged. The unprecedented growth of vocational education occurred concurrently with the growth and development of the community college concept. This development in the United States has led other nations of the world to serve the needs of a growing population requiring better training for a more complex technological world till this day.

GOVERNMENT INVOLVEMENT IN VOCATIONAL EDUCATION AND TRAINING PROGRAMMES IN NIGERIA

Government involvement in vocational education programmes in the country has not been encouraging since independence in spite of the fact that this same form of education holds the greatest guarantee for economic survival and a solid manpower foundation for technological and industrial growth. According to Olaitan (1992), the case of Vocational/Technical Education in Nigeria today is therefore comparable to the case of the indigent farmer, his malnourished ass and his piece of land that must be ploughed by the ass-drawn plough. Unless the ass is steamed-up and well groomed, it would not plough the land very well. Yet, the indigent farmer has not the wherewithal to feed his family well not to mention the ass.

This parable depicts the dilemma of Vocational/Technical Education in Nigeria since independence. In line with one of the traditional theories

of vocational education. "The best reliable source of content for specific training in an occupation is in the experience of masters of that occupation" and, "the instructor must have had successful experience in the application of skills and knowledge in the operations and processes he undertakes to teach". The major role of the government is the training of efficient manpower to man our various institutions.

Technical Teacher Education in Nigeria dates back to the early 1950s with the establishment of the Technical Training Centres at the Yaba Higher College. That programme was established under the auspices and funding of United Nations Educational Scientific and Cultural Organisation (UNESCO) for at that time, technical education was still a neglected aspect of the Nigerian education system. As a British colony, any recognition of an educational system that took its roots from the American system was the most unimaginable thing. According to Olaitan (1992), the department of Vocational Teacher Education of the University of Nigeria, Nsukka was established in 1962 as the first indigenous degree programme in technical education. The programme was established with the financial and material support of the Michigan State University and in later years it received some assistance from the Ford Foundation from the United States. Today, these agencies have withdrawn their support and the programme is now entirely funded by the Federal Government. The Federal Colleges of Education (Technical) located at Akoka and Gombe came into existence in the 1970s and also enjoyed a bit of sponsorship from foreign agencies before government take over of the financing.

Since the inception of the new educational system from the National Policy on Education which introduced the now well known 6-3-3-4 system whose elements of 6, 3, 3 and 4 are also just as well known by now, the need for a geometric increase in the number of technical teachers in the country had become more apparent as all secondary schools in the nation were expected to start offering various technical subjects. The success of this still remains a mirage after over two decades.

In order to obliterate the shortfall in technical teacher supply, the Federal Government entered into agreement with some developed

countries to train technical teachers for the nation's schools and this did not yield a better result. This forced the government to look inward to domesticate technical teacher training programme in Colleges of Education, Polytechnics and Universities. It will be interesting at this juncture to go into a brief historical excursion on the establishment of tertiary institutions in the country.

According to Okuche (1997), it took 43 years to grow from the single Polytechnic in 1932 to eight in 1975. During the Third Development Plan period, growth accelerated to a total of 22 Polytechnics. By August 1991, there were 30 such institutions. In the case of Universities, following the Ashby Report, the University of Nigeria was founded in October, 1960 as *the first indigenous, autonomous, self-governed and non-affiliated university in the land*. Before long, it was joined by the University of Ife, (now Obafemi Awolowo University), the Ahmadu Bello University, the University of Lagos and the University of Ibadan which developed from the University College (a Campus of the University of London). By 1970, there were seven universities and by 1980 the number had increased to over 20.

During the late 1980s, some polytechnics, universities and colleges of education established departments of technical education for the training of technical teachers. The Federal Government on its part established more Colleges of Education (Technical) at Potiskum, Bichi, Omoku, Asaba, Umunse and Gusau with a view to producing enough technical teachers for the effective implementation of the 6-3-3-4 system of education.

In fact by the time the Nigerian Defence Academy, Kaduna was upgraded to a University in 1984, Nigeria had 29 universities. The conventional university created in Abuja by the Federal Government in 1988 brought the number to 30. The 31st university came in 1991 in the 31st year of the country's political independence. By January 1992 when the Universities (Miscellaneous Provisions) Decree (otherwise known as Decree 11 of January 1993) was promulgated, Nigeria had 24 Federal and 12 State Universities distributed in the 30 States and Abuja. However, it should be noted from the above that a fraction of the institutions founded over a period of 70 years have departments of vocational and technical

education. It is of interest to note that except for the newly created one at the University of Ado-Ekiti in Ekiti State, no other university in the entire South Western Nigeria has one!!!

The government's involvement in vocational education or training in the informal sector had been a bit encouraging through mass participation and grassroot mobilisation efforts except for the political undertones. Though most of the programmes centred around improved agricultural productivity, nonetheless, they were all aimed at self sufficiency in food production and economic survival of the citizenry in other areas of vocational endeavours.

According to Alademerin and Ogbazi (2001), many attempts have been made by successive governments since independence to address the menace of unemployment and poverty in the Nigerian households. Such include those specifically targeted at increased and sustained food production because of the agrarian nature of most rural households – NAFPP, Farm Settlement Schemes, OFN ADP, Green Revolution, DFRRI, NDE, Peoples Bank, Community Banks, BLP, FSP, FEAP, NALDA, PAP etc. (see Glossary for details of abbreviations). They have by and large been improperly operated and executed with reckless abandon and have at various times become avenues for government officials to siphon tax payers money. This renders such programmes ineffective with no positive impact on the poor.

To worsen the already bad situation, power game became the order of the day as there were seeming lack of co-ordination among the co-ordinating agencies and State Government officials. These agricultural revolutions have failed at various times because of the following:

- Lack of functional agricultural policies or long term planning on the part of the government.
- Poor inter-institutional linkages and dispersion of training responsibilities between various ministries and agencies as espoused above.
- Lack of adequate knowledge of recent developments in extension systems, approaches and emerging priorities (e.g. pluralism, client orientation, farmer to farmer extension, gender issues,

environment and sustainability, application of information technology).

- Negative attitudes to agricultural education and poor linkages between training institutions, extension, research, rural organisations, communities and households.
- Insensitivity of donors to national/local needs and situations, inter-donor competition and lack of dialogue.
- Lack of proper and progressive monitoring of various programmes and their regular education to determine level of successes or failure (Alademerin and Ogbazi, 2001).

THE RELEVANCE AND FUTURE OF VOCATIONAL AGRICULTURAL EDUCATION IN NIGERIA

Agricultural education has as its main objective to “teach and train present and prospective farmers for proficiency in farming, and also carry out intensive and aggressive research work into crop and livestock husbandry; protection, management and expansion of forests, control of pests and diseases of man and his animals and crops; conservation and gainful use of soil and water, extension of social services to rural communities...”

Vocational agriculture is designed to develop the competencies needed by individuals engaged in or preparing to engage in production agriculture and in agricultural occupations other than production agriculture. According to Okorie (1976), “specifically, there are three well recognised groups served by agricultural education in the United States. These are the following:

1. In-school farm youth preparing to farm.
2. Out-of-school young men engaged in farming, usually on their home farm, or employed as farm workers, looking forward to full establishment as independent farm operators.
3. Adult farmers fully established as operators either as owners or as tenants”.

The image or status of agriculture/agricultural science in the nation's secondary schools is still low. A study carried out in 1990/91 by the author on the image of Agricultural Science among students and teachers

in Ogun State Secondary Schools revealed the following:

- (a) That agricultural science is an energy sapping and very tedious school subject which involves much drudgery in which one puts in much and gets little or nothing in return.
- (b) That the subject wastes much time in the name of practical lessons on the farm.
- (c) That it is synonymous with "farming".
- (d) That the practical lessons are difficult to be divorced from school punishment.
- (e) That agricultural science teachers have undue advantage in the school and are usually greedy with farm products.

At present, there is not much commitment by the public education system to research, experiments and information aimed at helping both the rural and urban people to see the need for changes in attitudes of youths towards agricultural education.

"In Nigeria, options still vary as to the intention and objectives for establishing agricultural science programmes in the schools. Students who enrol for agricultural science in schools only do so to make up their educational requirements. They scarcely have any plan or intention of going into full time agriculture: (Okorie, 1976). He went further to indicate that these observations emphasize the need for agricultural education and if farm and non-farm workers are to be proficient in their jobs, the following points call for an upsurge of interest in providing agricultural education to a greater number of populace:

1. Agricultural education provides for self employment, as graduates of the programme can profitably undertake agricultural activities of their own. This situation can help to offset the high cost of living in the country.
2. The situation in Nigeria now calls for skilled manpower, and agricultural education gives individuals the skills that make them become both intelligent consumers and producers.
3. Individual interests can comfortably be accommodated in agriculture in view of the diversified nature of the occupation.

4. There is need also to produce adequately qualified persons to assist in tapping our natural resources, so as to meet an urgent demand for new materials to feed the rapid growing agro-based industries.

In the event that the above points are well implemented, the tendency for the agro-business to be vibrant to support the overall national economy will be assured. It is through this that a perfect sustainable livelihood will be attained.

Sustainable livelihood development has become a fashionable term and is currently used in issues relating to agricultural revolution. It is purely living within one's means, or "putting back what is taken out". The concept of sustainable rural livelihood is becoming central to debates about rural development, poverty reduction and environmental management. The concept can be defined as "comprising the capabilities, assets (including both material or social resources) and activities required or social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base" (Scoones, 1998).

According to Carney (1998), three major interlink aspects have to be considered at all times in this concept of agricultural revolution. First, sound environmental management and conservation of the natural resource base must be ensured. Second, the attainment and continued satisfaction of human needs for present and future generations must be assured. Third, sustainable farming systems in the long term can only be successful if these are agreed, and implemented by the whole community. Their characteristics are

- (i) Stable—do not disrupt ecological system or over exploit natural resources.
- (ii) Regenerative.
- (iii) Productive and profitable.
- (iv) Resilient—to adverse weather conditions, pest and diseases.
- (v) Appropriate - may be adapted
- (vi) Self reliant

(vii) Non-disruptive (Whiteside, 1998).

In redefining the challenges posed by agricultural related problems, some livelihood strategies would have to be adopted by farmers in Nigeria. These strategies are the range and combination of activities and choices that people make or undertake in order to achieve their goals. Three broad clusters of livelihood strategies have been identified, simultaneously or in sequence: (i) Agricultural intensification/extensification; (ii) Livelihood and (iii) Migration (Scoones, 1989).

The strategies are built around five different types of assets according to Carney (1998) thus:

- Natural capital – land, water, vegetation, biodiversity etc and environmental services.
- Social capital / social resources (networks, groups, trust, social relations etc).
- Human capital – skills, knowledge, good health and ability to labour.
- Physical capital – basic infrastructure (transport, shelter, communication, energy);
- Financial capital – financial resources (savings, access to credit, bank loans, remittances, pensions etc).

CONSTRAINTS AND CULTURAL BARRIERS IN THE DEVELOPMENT OF VOCATIONAL AGRICULTURAL EDUCATION IN NIGERIA

In line with the main theme of this conference, it is pertinent to clearly understand the challenges of vocational agricultural education before redefining them and going into priority analysis. Many factors constitute the challenges and they contribute towards the negative development of agriculture, including education as an institutional input. Agricultural technologies and techniques are constantly changing and farmers need to be made aware of and know how to use agricultural innovations for the exploitation of inherent yield potentials. Barriers to these include a number of factors including inadequate and poorly motivated technical and field workers, inadequate operational funds, lack of relevant

technology, inconsistent government policies and a general lack of accountability, poor educational background and inadequate extension services, poor image of agriculture, lack of group dynamics etc.

It can also be mentioned that community indifference and resistance constitute a real inhibiting factor in some cases. Parents nowadays exert direct influence on the acceptance of types of instructional programmes for their children. In many instances, the youths tend to abhor agricultural education because they do not find rural vocation and living encouraging. According to Okorie (1976), it is therefore no surprise that the young Nigerians of today grow up to resent work on the farm. This situation is aggravated by the attitudes and performances of those employed in the field to promote agricultural production and education, as they are all ill equipped to perform their duties.

Generally, it can be stated that the underlying cause for the negative attitude towards agriculture in general and farming in particular is in the inability of the youths, parents, and farmers to believe that agriculture can offer a prosperous and attractive way of life for the young people of this country.

Functional education of the Nigerian youths is key asset in the overall growth and development of agriculture. The Nigerian youths of today which invariably will be the farmers of tomorrow require the skills, knowledge, attitudes and motivation in farming. Such are needed in areas of agricultural extension, cooperative education, group dynamics, marketing and distributive education etc. For some two decades or so now, the debate concerning the relations between formal and informal education, scientific research and agricultural production has focused on the relationship between farmers and agricultural research staff and role of farmers in the research process. For a more meaningful impact of education on the research community especially the farmers, there are strong advocacy for the adoption of Farmer Participatory Research in Agriculture (FPRA) in our rural practices.

In agreement with the concept of FPRA, the International Federation of Agricultural Producers (IFAP), (1998) comments that in recent years, much has been discussed and written about farming

systems. However, one is sometimes left with the impression that most of this work is done by experts by researchers for researchers, by officials for officials. Ironically, the people who are most frequently excluded from the search for improvement in agriculture systems are the farmers themselves.

A useful classification of the degree of farmers' participation in the research process is given by Biggs (1989):

Contract – scientists contract farmers to provide land and/or services.

Consultative scientists consult farmers about their problems and develop solutions.

Collaborative – scientists and farmers collaborate as partners in the research process; and

Collegiate – scientists strengthen the independent informal research and development systems in rural areas.

THE WAY FORWARD

This part forms the basis on which I will anchor my presentation. The suggested ways I believe will help us to move forward and also help in redefining the challenges previously discussed.

Agriculture is an important element in the social fabric of Nigerian society and plays an essential role in the formation of its cultural identity. The United States of America is presently occupying the enviable position of a world power because of her commitment to agriculture to sustain its teeming population and also to inculcate right attitudes of self-reliance in the youths from the college. This is clearly evident from the Morrill Land Act which formed the foundation of the development of vocational education in United States till today.

In redefining the challenges posed by Vocational Agriculture Education, the followings are hereby suggested:

- There is the need for the National Assembly to legislate on the status of Vocational Education in the country. This will accord the national priority, right status and enviable position to the discipline as was done in the United States Federal House by the Morrills and Smith Hughes

which later gave national prominence to the discipline up till this day. The States Legislative House can also initiate same independently.

- There is the need for review and modification of the present primary school curriculum to give prominence to primary agriculture. It may interest you to know that there is no acceptable and recognised curriculum for primary agriculture till today in the nation's primary schools. Pupils can be goaded to inculcate right habits and attitudes towards agriculture from this foundation level. This will improve the image or status.

- Primary Introductory Technology should be introduced into the nation's primary schools. The hidden talents in our youth should be tapped at tender ages. These are regularly shown through their ingenuity during the Junior Engineers Technicians Scientists (JETS) Club competitions nationwide. The teachers in the primary schools can take advantage of the low level of discrimination of complex concepts to improve on the pupils' cognitive development.

- A plea is thereby made to the various state governments especially in the South West for the establishment of their various state Commissions for Vocational and Technical Education. The geographical zone is lagging behind others in this developmental initiative (except for Oyo and Ekiti States). The board will now be able to initiate a good direction for vocational education in their respective states.

- Regular training and retraining of adequate and competent vocational technical teachers from the nation's tertiary institutions in all areas of vocational education especially agricultural education to meet manpower needs in the primary, secondary and technical schools in the country.

- A certain percentage of the Education Tax Fund (ETF) should be set aside for Vocational Education in the country. Industries that contribute to the ETF should also be made to set aside a certain percentage of their staff recruitment on yearly basis to new graduates from tertiary institutions in vocational education disciplines.

- Regulating bodies like ITF, NECA and private sectors should

regularly liaise with the supervisory bodies of tertiary institutions – NUC, NCCE, NBTE, etc in the accreditation exercise of vocational education courses. This will allow for new information and modifications of existing curricula and the upgrading of the needed manpower in the industries.

- For effective school practical and exposure of students to concepts, the principle of comparative advantage should be allowed to subsist in relation to schools in geographical areas that support forest crops or savannah crops or animal production. In event of urban schools, they can go into animal production because of lack of space and rural schools can go into crops and animal production because of obvious advantage. The government should regularly fund these so as to inculcate right attitude in our youths towards productive ventures in agriculture.

- The government should initiate a good inter-institutional linkages and dispersion of training responsibilities between various ministries and agencies e.g. MANR & NDE, MANR & NAPEP, NAPEP & NDE, ADP & MANR etc. They must inculcate recent developments in extension systems into the training programmes of ADP nationwide. This can invariably be brought back into the school system through the ADP officials attached to schools.

GLOSSARY

| | | |
|-------|---|---|
| NAFPP | - | National Accelerated Food Production Programme |
| OFN | - | Operation Feed the Nation |
| ADP | - | Agricultural Development Project |
| DFRRI | - | Directorate of Foods, Roads and Rural Infrastructures |
| NDE | - | National Directorate of Employment |
| BLP | - | Better Life Programme |
| FSP | - | Family Support Programme |
| FEAP | - | Family Economic Advancement Programme |
| NALDA | - | National Agricultural Land Development Agency |
| PAP | - | Poverty Alleviation Programme |
| NAPEP | - | National Poverty Eradication Programme |
| MANR | - | Ministry of Agriculture and Natural Resources |
| FPRA | - | Farmer Participatory Research in Agriculture |
| ITF | - | Industrial Training Fund |
| NECA | - | Nigerian Employers Consultative Association |
| IFAP | - | International Federation of Agricultural Producers |
| NUC | - | National Universities Commission |
| NCCE | - | National Commission for Colleges of Education |
| NBTE | - | National Board for Technical Education |

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