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# RE-ENGINEERING AGRICULTURAL EDUCATION AT NCE LEVEL FOR SELF EMPLOYMENT AND PRODUCTIVITY IN NIGERIA

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By

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## **Abstract**

*The role of the agricultural sector to the nation's economy has been on the decline in recent time. The educational sector has equally failed in its role of producing skilled and semi-skilled staff in agriculture for job creation and self-employment. This paper focuses on why the need to re-engineer agricultural education in Nigeria, this stems from changing technology, globalization, climatic change, deregulation, e-marketing and competition. It also looks at how to re-engineer agricultural education at NCE level in Nigeria. This can be achieved through curriculum review and re-design, employment of qualified teachers, creating a conducive operating and enabling environment and, according agricultural education a high dignity and priority for optimum productivity.*

Agriculture plays a strategic role in the development of any nation, especially a nation with teeming population like Nigeria. It provides food, employment, raw materials, foreign exchange earning etc.

Agriculture was the mainstay of the Nigerian economy in the early 60's and late 70's. In other words, it was the "chief foreign exchange earner". The reverse became the case in this 21<sup>st</sup> century, as it now occupies almost the lowest part of the country's economy. The share of agriculture exports fell from 80% in 1960 to 1.5% in 1990 (Awotoye and Okomanyi, 2010). Why is this so? This is because agriculture is neglected and this has caused discouragement and apathy for agriculture on part of the Nigerians, even government. Worst still, even though about 95% of the Nigerian populace are engaged in agriculture, they cannot produce enough food to meet the food requirement of the nation; hence there is food crisis in Nigeria. Therefore, agriculture needs to be repositioned and this can be done through the re-engineering of agricultural education.

Re-engineering according to Hammer (1990) is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service, and speed. Re-engineering is therefore, the radical redesign of business processes in order to achieve major gains in cost, service, time and quality.

Ogundipe (2009) defined agricultural education as a subject of vocational education which is an occupational related training aimed at exposing, inculcating and developing knowledge, practical skill, competencies and attitudes. It provides the right type of skills, and knowledge that will make individuals function effectively in any profession or job chosen, and in agricultural related job or career.

Agricultural education as an integral part of vocational education can generally be described as education for vocation. Suleiman (2011) described agricultural education as a vocational education which entails skill acquisition intended to prepare learners for a career in agriculture.

The descriptions/definitions of agricultural education imply that it bestows in its recipients skills, abilities and competencies for career in agriculture and agro allied industries. The graduates of agricultural education should also be employable, be self employed and/or be an employer of labour. The graduates of agricultural education should not be roaming the streets and looking for jobs. This is the “hard” truth today and is quite different from the objective of establishing the department of Agricultural Education in Colleges of Education in Nigeria. This goes a long way to buttress the fact that there is a gap between what is learnt in agricultural education in the class and what is outside the class. Agricultural education in the class today only emphasizes the theory at the expense of practical. Hence there is a mismatch between the products of agricultural education and the world of work. Adedayo (2010) in line with the above stated that the status of agricultural education in Nigeria is grossly undermined and ineffective as a lot of vocational agricultural students are unable to accomplish simple practical farming activities given the required facilities.

### **The Need to Re-engineering Agricultural Education in Nigeria**

Re-engineering is near “starting over”, for instance if one asks this question; if I were recreating agricultural education today, knowing what I know now and given current technology, what would it look like? One of the major reasons for re-engineering agricultural education in Nigeria is the failure of the current agricultural education to meet the strategic objective of inculcating skills, abilities and competencies in its recipients in order to bring about the much desired agricultural revolution in Nigeria in terms of providing the required food and employment for Nigerians.

Besides the above reason, the following are some reasons for re-engineering agricultural education in Nigeria:

- (1) **Changing Technology** Change is permanent. Everything is subject to change except God. So also technology is always changing. Technology, simply put is the application of scientific knowledge to improve our ability to do work for improving our daily lives.

The digital revolution has created an information age. The era of industrial revolution emphasized on mass production and mass consumption. The era of information revolution now tends to more accurate level of production and more targeted communication. In the information age, Information and Communication Technology (ICT) holds the key to every issue of life including agriculture.

Therefore, agricultural education must be ICT compliant in order not to make its graduates a mismatch in the system. New improved seedlings, new methods of farming, new farming machines, etc. are being introduced daily in advanced countries of the world.

- (2) **Globalization** This has made the world to be a common village. Information revolution has made the world to be highly digital and sophisticated. The world is growing and still growing smaller every minute with the advancement of ICT. Technological advances in transportation and communication have made it easier for farmers to market their products in other countries and easier for consumers to buy agricultural products and services from farmers in other countries. Therefore, agricultural education in Nigeria needs to be re-engineered to meet international expectations.
- (3) **Deregulation** Most countries of the world have deregulated economies. The effect of the deregulated economies is that it opens the economy to both local and international competition. Moreover, the world is global village as a result of globalization. As a result, Nigerian farmers have to be as competitive as farmers in other countries of the world. Therefore, agricultural education needs to be re-engineered to meet the international standard for easy competition.
- (4) **Customer/Consumer Empowerment** Customers/consumers increasingly expect high quality product and service, for more satisfaction and convenience. Consumers now even show brand loyalty between products e.g. semovita and semolina flours. They can obtain extensive product information from internet and other sources which allows them to shop more intelligently. They show greater price sensitivity in their search for value. Agricultural education in Nigeria must be re-engineered in order to meet the changing needs of the consumers as stated above.
- (5) **Electronic Marketing (e-marketing)** Marketing and distribution of agricultural good and service have become scientific and ICT oriented. Gone are the days when farmers sit down at their farms and expect both marketers and consumers to come down to their farms and buy agricultural products. Agricultural products are now marketed through internets. Payments are a times made online through the help of ICT. It is therefore high time for agricultural education to be re-engineered to reposition agriculture in Nigeria. To this effect, agricultural education must be oriented towards ICT.
- (6) **Competitors** Agricultural education faces a lot of competition from other sectors of the Nigerian economy. Different sectors of economy in Nigeria compete for resources and attention from government. In the early 60's and late 70's when Nigerian government paid attention to agricultural sector, agriculture was the "chief foreign exchange earner". Now that the attention of government is on the petroleum sector, agriculture is neglected and the contribution of agricultural sector to Gross Domestic Product (GDP) has drastically fallen. In the same vein, agricultural education has to compete with others in the educational sector. Therefore proper re-engineering of agricultural education enhances competitive advantage of it over others in the sector.

## **How to Re-engineer Agricultural Education in Nigeria**

Agricultural education could be re-engineered in some of the following ways:

### **(1) Curriculum Review and Redesign**

Ahmadu (2011) defined curriculum as a series of planned and or unplanned activities to which a learner is exposed to in the course of his/her development, the aim of which is to make him/her develop fully his/her potentials so as to function effectively in the society. Simply, curriculum is a programme of studies, activities and guidance used by schools as a means of achieving its purpose and objectives.

Agricultural education curriculum was developed many many years ago and need to be revised and redesigned. The curriculum did not envisaged technological changes of the business world and automation of processes of production. Curriculum should be developed and improved upon as the society changes. As a result of these changes, one way to re-engineer agricultural education is the reviewing and redesigning of the curriculum. The changes that have taken place in the recent times have rendered the present curriculum obsolete.

### **(2) Employment of Qualified Teachers**

A teacher is the person who has more knowledge, information or skills than another person (learner) and is ready to impart his own knowledge, information or skills to that person who desires to learn from him (Akande, 2006). The implication of this definition is that a teacher has superior knowledge than his learners in a certain discipline and sees himself or is seen by others as an instrument of change in the lives and behaviour of learners.

One way to re-engineer agricultural education in Nigeria is the employment of adequate and qualified teachers to teach in the Colleges of Education. Teachers in agricultural education must possess the knowledge, skills and attitudes desired of all educated persons, the technical competences required of one or more areas of agricultural education, knowledge of principles and methods of teaching and some practical experience in one of the agro businesses. Besides, the teachers must be well prepared, informed and ready to impart knowledge.

### **(3) Conducive Operating Enabling Environment**

Operating and enabling environment entails the provision of appropriate, adequate facilities and equipment that are necessary for functional agricultural education in Nigeria. Agricultural education is confronted with lack of appropriate and adequate teaching facilities. Olaitan (1993:47) stated that

*unless the learning environment is made a complete replica of the work environment, the input-output flow would suffer serious disequilibrium. Any efficient and effective programme in education uses a learning environment which is similar to where the learner will eventually work, using the same method, materials and equipment.*

From the contribution of Olaitan, there would be no effective re-engineering of agricultural education except the enabling operating environment is provided for agricultural education in Nigeria.

**(4) Agricultural Education should be Accorded High Dignity and Priority**

One good way to re-engineer agricultural education in Nigeria is to recognize that the education is for highly intellectual children. The societal attitude towards agricultural education is appalling (nothing to write home about). In Nigeria, agricultural education plays second fiddle role. The society believes that the programme or education is for “never-do-well children. Many parents do not allow their children to go into agricultural education courses, unless it is the last resort. Similar to accord agricultural education with high dignity is to give agricultural education high priority. Scholarship should be granted to those children offering agricultural courses in the colleges of education.

**Conclusion**

The importance of agriculture in a developing economy like Nigeria cannot be overemphasized. For the achievement of any meaningful economic growth and development through agriculture, it has to work in conjunction with the educational sector for the needed manpower training for skill acquisition.

The number of graduates in agriculture is on the increase, yet the contribution of agriculture to the nation’s economy has been on the decrease. This calls for a sober reflection on the part of our policy makers, to see the need for re-engineering agricultural education at NCE level in Nigeria. This is to enable them cope with the reality of the day in modern technology advancement, which becomes imperative.

The need for re-engineering agricultural education at College of Education level in Nigeria is now. This is in view of the present climatic change, changing technology, globalization, e-marketing, deregulation and high level of competition among stakeholders in agriculture. To achieve a meaningful success in the drive to re-engineer agricultural education in Nigeria, there is the need to review and re-design College curriculum, employment of qualified teachers, creating a conducive operating environment for high performance, according agricultural education a high dignity and priority for optimum output and self-reliance.

**Recommendations**

The following recommendations are suggested to make re-engineering of agricultural education in Nigeria to be effective:

1. Agricultural education curriculum should be reviewed and redesigned. This should also be done in collaboration with the participation of the private sector to make it suitable in order to avoid a mismatch between the education (training) and the world of work.
2. There should be employment of adequate and qualified teachers to teach agricultural education courses. Teachers on their own part should develop themselves through training, workshops, seminars, conferences on agro related matters.

3. Agricultural education is expensive therefore private sector should partner with government to provide the necessary equipment and facilities needed for effective and efficient agricultural education in Nigeria.
4. Society should be educated on the importance of agricultural education to disabuse the negative impression they have towards agricultural education. This can be done through public enlightenment campaign and workshops organized by government and non-governmental organizations (NGOs).
5. Government should award scholarships to students of agricultural education to attract students choosing the course

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