

# RETHINKING AGRICULTURE IN NIGERIA: A PRAGMATIC PERSPECTIVE

<sup>1</sup>Nwaeke Christopher Ude and <sup>2</sup>Anyim Benjamin Any

<sup>1,2</sup>General Studies Department, Federal College of Agricultural Ishiagu, Ebonyi State

## ABSTRACT

*Rethinking agriculture means that agriculture should be reviewed, revisited, reorganized, rejuvenated and reprogrammed. These have to do with giving agriculture a new orientation so that the concepts and attitudes of people especially the youth towards agriculture will change. This can be done by redefining agriculture. The world's food system should not remain hostage to such short-term turbulence. Producing enough food for the world's growing population and getting it to the people who need it requires rethinking agriculture in Nigeria and the world at large. Hence, a pragmatic concept of agriculture should take precedence amidst all other approaches to agriculture.*

## INTRODUCTION

Indeed, there is less land available in Nigeria for wide agricultural use. This is so because the available lands are not accessible to those would want to engage in large scale agricultural activities. There is less water available for agriculture because there is no irrigation system. However in nearly 20 years' time, by 2036, we will have 2 billion more mouths to feed. To literally feed the world and Nigeria in particular, agriculture will have to double food production since we have more people and increasing wealth and of which the implications on the world diets is that it puts daunting strains on how

we produce the food we eat. While quite challenging, we believe pragmatic approach to agriculture can meet this demands but only with the full use of technology that enhances crop protection and seed care. It is about unlocking the potential of plants.

Farmers need access to the full tool box of the newest and upcoming agricultural technologies to drive yield even higher over the next 10-15 years. Where this is achieved, it means that agricultural productivity will again grow faster than world population and thus play a central role in achieving food security worldwide.

*The world's food system should not remain hostage to such short-term challenges. Producing enough food for the world's growing population and getting it to the people who need it requires rethinking agriculture in Nigeria and globally. A long-term perspective requires that agricultural production and distribution look beyond the financial crisis and instead be guided by long-term political, economic and social consideration ([www.global-economic-symposium.org](http://www.global-economic-symposium.org) › Knowledge Base › Environment). The World Food Program's funding needs are rising and vulnerable nations have depleted their fund reserves and hit by the financial crisis, have no*

*resources left to manage potential future food shortages. Once Nigeria recovers from her current economic recession she will be faced with the combination of rising population and shortage of income which will push food prices further upwards. Now is the time for Nigerian government to plan for a sustainable food production system, which will be based on our collective cooperation.*

It is on the above platform that this article seeks to stimulate thought on the philosophy behind agricultural research. Pragmatism is identified as a philosophical basis for studying and addressing the challenge posed by food shortage in the system. The ways in which this approach is applicable to the study of holistic agriculture are illuminated. We describe the main goals of pragmatism as accepting a systemic approach to the study of interrelationships between humans and the environment; gaining understanding through human experiences; viewing problems as whole complex "problematic situations"; and promoting social activism and appropriate policy formulation. Pragmatism allows for holistic analysis that incorporates numerous factors that drive human practical approach to challenges.

#### **Agriculture in a Holistic Concept**

There are many online queries on what is agriculture although its history started more than 10,000 years ago. We used to think that this is quite amazing because the word agriculture is of common usage. On second thought, we now realize that this seemingly high interest in clarifying the term is justified in view of its large coverage, its varied application as a science,

practice, business, and for other purposes including legal matters, and with new technologies and specialized fields continuously added into its fold. In relation to crop farming and livestock farming, the term "agriculture" may be defined as: the art and science of growing crops and the raising of animals for food, other human needs, or economic gains.

The above definition can be used as a compressed answer to the main question what is agriculture. It describes agriculture as both an art and a science (needs skill and founded on scientifically verified facts) and thus includes specialized disciplines; the words "growing" and "raising" are descriptive of enterprise, activity or practice. It has two main divisions: plant or crop production and animal or livestock production; and its ultimate purpose is for food production, other human needs such as clothing, medicines, tools, artistic display and dwelling, or for economic gain or profit. It is admitted that no definition can be exact for everybody and for all purposes. In fact, the science of agriculture is dynamic.

#### **Rethinking Agriculture in Philosophical View**

There is a concern that agriculture will no longer be able to meet, on a global scale, the growing demand for food. Therefore facing such a challenge requires new patterns of thinking in the context of complexity and sustainability sciences. The inter-subjective nature of knowledge, as studied by different philosophical schools, needs to be better integrated into the study and management of

agricultural systems than it is done so far. Different agriculture related problems require different policy and institutional approaches. [www.internationalinnovation.com//p76-77](http://www.internationalinnovation.com//p76-77) Marta Guadalupe Rivera Ferre Intl retrieved 15/9/2016.

Although progress has been made during the last few decades to integrate complex features into agricultural studies, policy-makers may still have to face many challenges when promoting sustainability. Their task is impeded by the different patterns of thinking underlying agricultural studies. The inter-subjective nature of knowledge has important consequences in the study of agricultural systems. Philosophical relativists assert that statements cannot be objectively true or false, only legitimized or delegitimized by a particular culture. Social constructivists assert also that knowledge is social in origin, knowledge formation and the development of knowledge structures take place within a socio-cultural context and individuals live in a world that is physically, socially and subjectively minded.

*Rethinking agriculture takes some variables into considerations. In fact, rethinking takes some dimensions such as:*

- i) *Re-thinking agriculture entails to use the new technological and economic opportunities of agriculture to address the current and emerging problems, especially food security, resource scarcity, climate change, and health.*
- ii) *The re-thinking should start with re-defining agriculture (traditionally understood as a farm based sector) as*

*International Journal of Agriculture Management and Technology part of a broader "bio-economy", i.e. the activities embracing the food value chain and its health and safety attributes, as well as the agro-raw material and biomass production and processing, and the production of regional and global public goods such as agriculture related eco-systems services.*

- iii) *"Re-thinking" must be followed by "re-doing" agriculture. That includes the actual use of the institutional and technological opportunities, not just their "thinking" in research, such as biotechnologies. "Rethinking" agriculture leads to a much more knowledge intensive agriculture.*
- iv) *The diverse structures of agriculture, globally characterized by about 300 million small farms and a large farm sector needs to be kept in perspective. Small-farm agriculture offers opportunities and poses constraints, which can be addressed by new technologies. [www.global-economic-symposium.org](http://www.global-economic-symposium.org) > ... > Environment > Rethinking Agriculture, retrieved 15/9/2016.*

### **A Strategy Plan in Rethinking Agriculture in Nigeria**

Agricultural rethinking needs a strategy plan. Although Nigeria has an Agricultural Policy and a Science and Technology Policy, realistic national research strategy plan is yet to be produced. A well-conceived national agricultural research strategy plan provides the framework for growth and evolution of the



agricultural research system. It defines the mission, provides orientation and gives direction to programme development. The strategy plan can be a powerful tool in mobilizing support. It helps build national commitment to agricultural research and it can help raise the level of investment in research (Shaib, 1993).

In Nigeria, as in most developing countries, overall economic and social development is based on technological progress in agriculture. To achieve sustained progress in the sector, we need three basic ingredients: appropriate technology, supporting policies and strong institutional capacity. Efforts have been made in generating appropriate technologies over the years mostly by our national research institutes. The process of technology generation, however, has been very slow and yet advances in agricultural production are unlikely without strong agricultural research capacity.

Furthermore, the Consultative Group on International Agricultural Research (CGIAR) argued that, it is clear what is expected from the agricultural sector: it must increase production and generate more income and employment opportunities. But it must do so in a more appropriate way than at present, without encroaching on forests and grasslands and without a major recourse to the use of chemicals. We need crop varieties and livestock breeds that are hardy and nutritious but which, at the same, allow farmers to economize on land and energy inputs. There is an urgent need to develop sustainable production systems for various types of land and water resources, particularly for the vast areas of marginal land which have

*International Journal of Agriculture Management and Technology*  
been largely neglected in the past and where a majority of the world's poor live. We need to strengthen the existing production systems and survival strategies of poor small-scale farmers so that they will find it more profitable to conserve rather than destroy resources (Shaib, 1993).

It must be borne in mind that the importance of research lies in its role in spurring both agricultural and economic development. The crucial roles of agriculture in economic development are well known. It's being man's oldest profession, the basis of civilization and the engine for economic growth is based on the fact that it is the source of food and feeds, a major employer, especially in developing countries such as Nigeria, a producer of raw materials for industry, a source of exports that earn foreign exchange and capital for development of other sectors of the economy and efficient agriculture releases surplus labour for industry and other occupations.

#### Other Areas of Focus for Strategy Planning

These other areas include extending the storage life of perishable products such as yams, fruits and vegetables; agro-processing including corn-protein, rich soy-ogi and non-wheat bread; soil and water management studies to promote sustainable agricultural production, including soil conservation system, fertilizer use efficiency and irrigation research; and agricultural mechanization.

Rethinking agriculture should take cognizance of storage facilities. Moreover, it must acknowledge that agriculture must be:

- i) Holistic in nature and based on a multi-

disciplinary and systems approach that give due consideration to the man's technology, environmental resource, economics, ecology and interactions involved.

- ii) Agricultural development policies, therefore, must be a component of overall policy on science and technology for sustainable development.
- iii) There is need for changes in education with increase environmental education and natural resources conservation and management content.
- iv) High priority should be given to generation or development of environment-friendly technologies.
- v) Research should focus on the development of integrated approaches that make the best use of physical, biology, chemical and cultural methods in the management of production systems, and in dealing with pest, disease and weed management. Such integrated approaches must be a blending of traditional, modern and emerging technologies.
- vi) There must be reorientation of researchers, policy makers, and the public about sustainable agriculture and sustainable development.
- vii) Networking and individual inter-disciplinary and inter-institutional collaboration at the local, national, regional and global levels are essential.

#### **The Relevant Concepts**

In rethinking agriculture, before we move ahead, it will be worthwhile to understand and demystify the meaning of the relevant concepts

**Manpower:** According to Singh, (2006), the term manpower was very popular during the Second World War, then apparently passed out to widespread usage and reappeared about 1960. The term has many different meanings today and has once again become quite popular. Again, manpower is taken as equivalent to the term labour when labour is understood to be a factor of production in the basic framework of analysis used by economists. In this broad sense, manpower can also be understood to mean generically personnel or employees. Actually, these usage of the term are virtually identical; the differences are less in substance than in point of view, one being that of the labour economist and the other that of the personnel student or practitioners

For another school of thought, manpower can be thought of as the total knowledge, skills creative abilities, talents and aptitudes and benefits of an individual involved. It is the sum total of inherent abilities, acquired knowledge and skills represented by the talents and aptitudes of the employed, hooped at in still another manner, manpower can mean the total quantitative and qualitative human assets or people in a society. In this sense we are literally interpreting the word to mean the power of man, both in terms of the size of the population and the talents and educational levels in that population. Population can be said to determine the quantity, and education combined with experience the quality of power.



**Human Resource:** Singh further argued that the term manpower has also been equated with 'human capital' and 'human resources'. Human resources can also be equated with labour or simply people. Similarly, it has been viewed as the citizens of the country beginning with childhood and going right through life. In a business organization, human resources are treated as one of basic resources or inputs which are to be utilized to the maximum possible extent in order to achieve individual and organizational goals. An organization's performance and resulting productivity is taken as directly proportional to the quantity and quality of its human resources.

**Planning:** planning means preparation for some specific action. It means determining of what is to be done and how it is, to be done." A plan is a programme of action for achieving definite objectives or goals. "Planning is a process of choosing and to make things happen that might not otherwise happen. Simen, Smith and Thompson cited in Singh (2006) define planning as the activity that concerns itself with proposals for the future, with the evaluation of alternative proposals and with methods by which these proposals may be achieved. Furthermore, Planning is the continuous process of making present knowledge of their futurity, organizing systematically the efforts needed to carry out these decisions and measuring the result of these decisions against the expectation through organized systematic feedback. When the planning is taken up for undertaking national developmental tasks, it is termed as developing planning. Manpower planning, in most of the countries is generally undertaken as a part

### Humanistic Education

The nineteenth century insistence of Newman and Arnold that the purpose of all education was to create 'gentlemen' out of the rough and raw homosapiens was replaced by John Dewey's pragmatism. The new trend was to consider school as a pattern of social action. True knowledge was no more the acquirement of culture, particularly from books, but was the power to do the right thing in a given situation. The goal of liberal education was to free man from ignorance, superstition, meanness and servility so that his response to several life situations would be human, generous and harmonious.

According to Roa (2007), a man education in the liberal tradition has the power to rise above immediate circumstances, has the ability to subordinate personal or group interests to the general good and self-centeredness to humanistic goals. He may not know everything, but he had a wide range of interests and knowledge on how to covert his knowledge into genuine acquirements of mind. Though we associate liberal education primarily with the study of humanities and arts, a liberally educated man is equally inquisitive about the other branches of knowledge also. He is free from ignorance and superstition; he consciously rises above the vulgar, the mean and the servile. The above supports the view that a liberally educated man is a polymath whose interest might be tethered to agro-business. This indeed calls for reconstruction and re-orientation of agriculture.

It is on the above consciousness that I argue that humanistic education should be based on the Indian conception and vision of man, nature and humanity. Our cultural conception of humanity is based on the ancient vision of the universal manifesting in the human race, evolving through life and mind but with a high ultimate spiritual aim. Rao maintained that the system has lost its internal balance which involves a serious element of humanities and social sciences simply not meeting the needs of society.

Today the goal of education should be the facilitation of change and learning and not mere imparting of knowledge. The only man who is educated is the man who has learned how to learn and who has learned that all learning proceeds from and ends with man. Humanistic education begins with the assumption that teaching is first and foremost a relationship between teacher and student which include human behavior, human meanings and human understandings that grow out of uniquely human experiences. Humanistic education places emphasis on the student genuineness and realness of the relationship between the student and the teacher. They come into direct and effective personal contact with each other; they participate in a mutually affective activity of learning and establish a perfectly harmonious relationship between each other.

Rao (2007) observed that the business of early education is to train the instincts so that they may produce a harmonious character, constructive rather than sullen, courageous, frank and intelligent. The teacher's role is not to indoctrinate or to dominate the student but to

guide them to engage themselves in 'value clarifications' in the light of the knowledge they acquire from several sources.

#### What is Pragmatism?

Pragmatism was a philosophical tradition that originated in the United States around 1870. The most important of the 'classical pragmatists' were Charles Sanders Peirce (1839–1914), William James (1842–1910) and John Dewey (1859–1952). *Pragmatism* is a philosophical movement that includes those who claim that an ideology or proposition is true if it works satisfactorily, that the meaning of a proposition is to be found in the practical consequences of accepting it, and that unpractical ideas are to be rejected. Just as identified in the introduction that the purpose of pragmatism as used herein is to allow for holistic analysis that incorporates numerous factors that influence human uses of the environment.

#### Conclusion

It is very clear from the foregoing that agriculture should be given a face-lift if it must be embraced by all. The face-lift that would make agriculture a-must-do business by all must take a practical approach. Pragmatism seems to be the best approach to agriculture. It is in pragmatism that agriculture can be rethought and redefined. Pragmatism is a philosophy that applies practical methods to issues and value for human life. It takes cognizance of every human endeavor and proffers best solution to life issues for the benefits of humanity. Hence, rethinking agriculture pragmatically is the best practice and

approach to new agricultural revolution and massive food production, particularly in Nigeria. This will help bring the youth to the realization that agriculture is for all, that, it is a sure and practical way to self-employment and survival in this complex society of ours. Indeed, it is the last resort to agricultural methods where other methods fail.

## References

- Rao, V. K. (2007). *Social education*. New Delhi: A P H Publishing Corporation.
- Singh, Y. K. (2006). *Human resource management*. New Delhi: A P H Publishing Corporation.
- Shaib, B. (1994). *Towards the national agricultural research strategy plan for Nigeria*. In B. Sbaib, N. O. Adedipe, O. A. Odegbaro and A. Aliyu, (eds). *Towards Strengthening the Nigeria Agricultural Research System*. Ibadan: Ibadan University Press
- [www.cropsreview.com/what-is-agriculture.html](http://www.cropsreview.com/what-is-agriculture.html) retrieved 15<sup>th</sup> September, 2016
- [www.internationalinnovation.com/.../p76-77](http://www.internationalinnovation.com/.../p76-77) Marta Guadalupe Rivera Ferre Intl I...retrieved 15<sup>th</sup> September, 2016
- [www.global-economic-symposium.org](http://www.global-economic-symposium.org) › ... › Environment › Rethinking Agriculture,
- [www.global-economic-symposium.org](http://www.global-economic-symposium.org) › Knowledge Base › Environment,