

IMPORTANCE OF AGRICULTURAL EDUCATION IN MANPOWER DEVELOPMENT

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Abstract

The need for more food and cash crops demands that a scientific approach is adopted. This can be achieved through agricultural education. This paper focuses on the role played by agricultural education to enhance technological advancement through manpower training. The tentacle of technology spread by agricultural education has helped to bring fruits of science to the farm-gate in the form, amount and time they are needed most. This is evidence by the calibre of agricultural expects, teachers and personnel to man government and private agricultural institutions. Problems militating against manpower production in agricultural education have also been highlighted and solutions proffered.

Introduction

From the pre-colonial era, agriculture was the most important economic enterprise in Nigeria with regard to the number of people in it. Nigerians were basically an agrarian society. This was credence by the fact that, good percentage of the men, women, and even children were farmers.

Many of these farmers were peasant and illiterate and used crude farm implements. Datamola, Igbokwe, Mosuro and Abdullahi (1999) stipulate that most of these local farmers used traditional tools like hoe, cutlass etc. Akinyosoye (1986:2) emphasized that, in West Africa, thousands of small peasants produce cash crops as cocoa, oil palm, groundnut, rubber and cotton which provide a source of income not only for the individual farmers who grow them, but also the governments of various countries. Methods of storage were crude, crops were stored in bags, inside holes, barns and basket; perishable attack on crops became prominent, with resultant poor yield and low total output.

With the discovery of oil in 1960s, its contribution to national economy rose sharply. Agriculture was de-emphasized and relegated to the background both as an occupation and as the farmer's major earner of revenue for the country. As a result the production of both cash crops and staple food fell (Fed. Information Dept, Public Enlightenment Division, Lagos, 1983). This has led to the present economic problems as a result of oil glut and emphasis has now been laid on scientific agricultural development. The Federal Government now re-emphasis on intensive and extensive revival of agricultural sector: and according to Akinbosoye (1986:3) through agricultural education farmers have benefited from the advanced scientific and technological knowledge of the developed countries and some improved techniques have also resulted from the work of local scientists in the Universities and government research institutes.

Agricultural Education and Manpower Development

Agricultural education was emphasized and introduced in primary, secondary and tertiary institutions. Through Agricultural Education farmers are taught how to acquire scientific knowledge or practice of farming. Agricultural Education is concerned with the training of agricultural personnel. Its main concern is to supply manpower to agricultural sector. According to longman Dictionary of Contemporary English (1995:29) "Agricultural Education is a scientific means of producing/growing food for the teeming population of a country'. It is the acquisition of all the essential principles, skill and knowledge involved in the production of livestock, crops and means of process and marketing of these foods. Phipps (1980) opined that it is a systemic instruction and training programme for the acquisition of farming knowledge and abilities, skills mental power as a strategy for increased agricultural production and other related services in the field of agriculture.

The term manpower development refers to the process of growth in the total per-capita income of a country and individual accompanied by fundamental change in the structure on a broader basis through training (Todaro, 1985). Aja(1996) as quoted by Aval (2002:17) asserted that elements involved in manpower development are skills. This is acquired through modern practices and skills in modern agricultural education (Oga & Ade, 2003), applied technology, income and improved social goods. Human development is an impetus to technological advancement. Man needs adequate training to handle all technological and business aspects of its life. The National Policy on Education (1981) refer to it as an aspect of education which leads to the acquisition of practical and applied skills as well as basic scientific knowledge.

Agricultural Education as an Impetus to Manpower Development

With adequate training in agricultural education, food supply will be abundant, employment will be generated and poverty will be reduced. There will be steady income for the country and the farmers and raw materials will be available for industries and then general improvement in manpower development. Products of

agricultural education programme will be fully equipped to participate in the scientific transformation of agriculture and practice in the country. Hence it is pertinent to note that agricultural education curriculum is designed to provide for the development of the cognitive, psychomotor and effective domains: Thus agricultural education programme provides experiences that enable recipient to be sound intellectually, acquires different skills that make for active and efficient participation in the production of food, fibre and raw materials, goods and services (Aval, 2002:16).

According to Adekoko (1998:56), "the inclusion of agricultural science in the education system of old was just for learning how to make a successful living from it", in most cases, agriculture was offered (at secondary School levels) because it was either made compulsory to keep the farm going or to make up credits in the final examinations, its objectives had never been to develop an individual that will be competent enough to take up farming as a business.

Ogunrinde (1992) claimed that the existing agricultural institutions objective could be seen as turning out manpower to man government agricultural establishments and organizations and not the production of agricultural graduates. Agricultural education has helped to disseminate vital information as to the various ways to reinforce the depressing nature of the productive sector of the economy. Agricultural educator (teacher) is more or less the extension agent who is to disseminate the results of research by research institutes to the learner (agricultural students) who in turn pass or impart such messages to the farmer (Agbabiaye, 1998: 72). Olaitan (1984) elaborates precisely that agricultural education has an essential role to play in reversing the falling social and economic status of agriculture.

According to Pine (2002) agricultural education provides sound knowledge of the basic principles and techniques of agriculture and the motivation with which they can translate this knowledge into real improvement in agricultural productivity. It provides the farmer with the knowledge upon which to base his production decision. It also helps rural farmers to develop an understanding of the inter-relations of urban and rural life and provide counseling about agricultural occupation.

According to Egbenehyo (2002: 94) "In Nigeria today agricultural education which is the focus of our attention are those courses or training provided by the various colleges of agriculture, trade centres, faculties of agriculture at the Universities, polytechnic and the training provided by the Universities of agriculture.

Many Agricultural institutions e.g. Universities, polytechnics and agricultural Universities and research institutions were established for the training of manpower for government agricultural establishments and other needs. Hence we have veterinary doctors, crop scientists, crop and animal genetics, agricultural economist that is versed in the development and business aspect. Agricultural engineers that deal with the principles of engineering application to agriculture, agricultural teachers (educator), researchers and extension officers responsible for the dissemination of new ideas in agricultural problems and agronomists who are concerned with soil management and crop production. Other areas of agricultural education include agricultural biology, Horticulture, poultry science, agricultural chemistry, animal breeding and management, livestock diseases, fishery and forestry.

The above training or technology provided no doubt stresses the importance of agricultural education as a vocation for the technological advancement of a country. Through the application of advanced technology in agricultural education, raw materials are transformed to goods and services that now dominate the world market.

The tentacle of technology spread by agricultural education has helped to bring fruits of science to the farm-gate in the form, amount and time they are needed most. Idachaba (1991) pinpointed that it has enhanced the upliftment of the living standard Education, according to Ezeh (1998) as a veritable means of developing knowledge and skill is used to improve oneself and society. Supporting this view FRN (1991) expressed that agricultural education is the greatest investment that a nation can make for quick development of its economic, political, sociological and human resources. The ability of the rural schools to make impact, depend on the teachers and particularly agricultural education. The objectives of agricultural education programme NCCE (1990.2) are:

- i. To produce teachers who have positive attitude to acquisition of agricultural knowledge and professional skills in farming; ii. To develop in the students the suitable communication skills for effective transformation of agricultural information to the students in relation to their environment; iii. To prepare the student teacher with adequate knowledge and ability to establish and manage a model farm effectively; and
- iv. To form solid bases to enhance further academic and professional progression of the student teachers.

According to Ezeh (1998:80), the objectives describe the calibre of agricultural teachers scattered in the rural schools.

Agricultural education has tailored farmers towards modern methods of farming and this can be

achieved through workshops, seminars, agricultural shows etc. Education according to Ogieva (1998) makes man complete, hence government has introduced the learning and teaching of agricultural science in the primary and tertiary levels. Education also helps farmers wipe out those traditional beliefs, which have no scientific basis.

Through Agricultural education technology, predictions of weather and climatic changes as they affect the growing of plants and keeping of animals are studied and known. Ogieva (1998) explain further that science of pathology deals with either eradication of disease pathogen or provided adequate control measures. It also helps in the development and judicious use of chemicals like insecticides, fungicides, fertilizers, herbicides, avicides, nematocides, rodenticides, and fumigants in other to improve the standard of crops and livestock. Also a husbandry method like monoculture, crop rotation, intensive farming, battery cage and deep litter systems in poultry has also been provide. Agricultural engineering education has helped in developing machinery and other equipment like tractors, cultivators, planters, combine harvesters etc to replace old tools like hoe, cutlass, rake etc. It also helps in the development of modem method of processing plants and animal product; like shelling and canning. Improved storage facilities like silos, cribs, rhombus etc have been developed. Vaccines have been developed. Also farm building like pens for livestock, poultry and pigs, construction of dams to supply water for irrigation etc have been developed by engineering technology through agricultural education.

Finally, nutritionists help in developing different types of feed stuff for animals by formulating feed ration, in fact this space will be too small to outline the role played by agricultural education as an impetus to manpower development.

Factors Limiting Manpower Development in Agricultural Education

There is shortage of qualified (professional) teachers in the field. The deplorable condition of service of teachers in Nigeria is a major factor limiting manpower production in agricultural education. Okeke (1995) attributed the exodus of qualified teachers from the teaching profession in Nigeria due to the way the profession is ridiculed. Teachers are poorly paid and therefore many qualified agricultural science teachers prefer working in international firms, private industry/commercial business etc because of higher pay. According to Hammond in Farber (1991) mathematics, agricultural science and other science teachers in U.S.A earn an average of 30 to 50% less than equally trained peers employed elsewhere. Eghehenyo (2002:98) emphasized more on this problem to include shortage of qualified personnel to teach the desirable agricultural education because of brain drain syndrome in sciences. According to Durojaiye (1978), teachers are in high demand, yet they are in low spirits. Ayoye (1986) also stressed the need for available trained teacher manpower, and according to Farber, Barry (1991), teachers of every type are dissatisfied, stressed, worn-out, and frenetic and over committed, under challenged and are leaving the field.

Another factor limiting manpower production in agricultural education is due to in adequate training facilities. Many agricultural institutions and research centers have limited facilities to meet the desired goal. Facilities like laboratories, books, working tools, machines, farms etc are not available for training. Olumeyan and Anaso (1989) Stressed succinctly that acute shortage of facilitates as well as organizational structure have been identified as major problems of manpower development in agricultural education.

The government pays lip service or little attention to agriculture. Government does not give adequate funds to agricultural research centres and agricultural institutions of learning to improve their quality of training. Adequate funds for the purchase of teaching and learning materials are not provided. The meager funds provided are usually misappropriated and mis-managed. Agbabiaje (1998:71) supported this view that, other constraints to agricultural development includes those due to inadequate capital arising from low capital allocation to agriculture by government and ineffective credit delivery system.

There is uncooperative attitude of farmers towards government educational programme which makes teaching of these skills and knowledge difficult to achieve. Egbehenyo (2002:98) agrees with this view when he observed that, "lack of genuine interest and motivation of agricultural education at the early school years affect learner interest on the profession". Most of this group of farmers lack, initiatives to adopt possible innovations. This is attributed to low level of literacy among farmers, which makes them find it difficult to follow instructions on new farming techniques.

Recommendations

1. There is need for a new approach. A new orientation is needed in the teaching profession so that teacher assumes the role of an enlightened polymath who continue to grow in the profession. Government should reduce salary differentials to minimize struggle for grades.
2. There is need for agricultural educationists, personnel and teachers to be given incentives in the form of special allowance in order to motivate them in the course of their career.

- Incentives like extra allowance to serve as motivation should be paid to agricultural specialists, researchers, educators and extension officers to improve.
3. Plan should be put in place to synchronize quality research and extension services. More universities of agriculture and research centres should be established to make their findings more accessible to the peasant farmers through extension services.
 4. Government should emphasise on intensive and extensive agriculture. Proceeds from oil should be used to invest more on agricultural sector. Fraudulent government officers found misappropriating or mismanaging funds meant for agricultural sector should be penalised to serve as deterrent to others.
 5. On the job training, service, refresher courses, study leave etc. should be given to agricultural personnel, experts and teachers to update their knowledge in agriculture. Also seminars, workshops, film shows etc. should be organised for practicing activities.
 6. There should be adequate capital allocation to agriculture and effective credit delivery system for better results. Loan should be given to agro-service centres and agro-industries to improve skills of production.
 7. Enough funds should be given to agricultural research centres and agricultural institutions to improve quality of manpower produced.

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