RELEVANCE OF VOCATIONAL AND TECHNICAL EDUCATION FOR NIGERIA'S HUMAN AND MATERIAL RESOURCES DEVELOPMENT

BY

AGBULU, O.N. (Ph.D) & WOMBO, A.B. (M.Ed)

DEPARTMENT OF AGRICULTURAL EDUCATION
COLLEGE OF AGRICULTURAL AND SCIENCE EDUCATION
UNIVERSITY OF AGRICULTURE, MAKURDI

Abstract

Nigeria is a country endowed with both human and material resources and yet its citizens wallow in object hunger and poverty. The need to look into the kind of educational practices that meet our needs and its implication to our lives and the society necessitated this work. This paper sees Vocational and Technical Education as one that suits our culture and tradition being rooted in our national policy on education as practised today. Vocational and Technical Education has the responsibility of developing a nation's human and material resource base and, so, serving as a solution to the country's problem. The paper concludes that what makes any nation developed and underdeveloped is its level of Science, Technical and Vocational Education. It recommended, among others, that graduates of Vocational and Technical Education should be aided with loans for self-employment and that institutions stand as guarantors. For our Vocational and Technical Education to move towards globalization, the basic requirement for its development must be in place and programmes should further include identification of new, untapped material resources in the country.

Introduction

The nation's education system between 1960 and 1970 experienced upheavals and uncertainties. In 1977, an important development in the education system of Nigeria occurred. This, apparently, led to the formulation of a comprehensive national policy on education, which clearly gives directions to the development of education at all levels (Taiwo, 1980). For the development of Technical and Vocational Agriculture, the National Policy on Education spelt out the objectives and specific subjects that would help achieve national objectives as well as individual and societal needs. Among the objectives stated in the National Policy for Secondary Education are: (i) offer diversified curriculum to cater for the difference in talents, opportunities and further roles; (ii) raise a generation of people who can think for themselves, respect the views and feelings of others, respect for
the dignity of labour. These provide openings for the development of Technical and Vocational Agriculture at this level of education. Among the goals of tertiary education enunciated in the National Policy are: (i) Develop and inculcate proper values for the survival of the individual and societies (iii) acquire both physical and intellectual skills, which will enable individuals to be self reliant and useful members of society. The implications of the above for human and materials resource development are that these avenues must be fully utilized at all levels of learning, building a strong Vocational and Technical Education base and ensuring that education is meaningful to learners and the society.

This paper shall consider:

- The importance of Vocational and Technical Education to human resource development in Nigeria
- The importance of Vocational and Technical Education to material resource development in Nigeria
- Problems of Vocational and Technical Education in Nigeria
- Solution to these problems and the ways forward

The Importance of Technical and Vocational Agriculture (TVA) To Human Resource Development

Vocational and Technical Education are interwoven and concerned with preparing human resources for human industries. The building of modern nations depends upon the development of people and organization of human activity. Capital, natural resources, foreign aid, and international trade, of course, play important roles in economic growth, but none is more important than human development (Harbison and Myers, 1964). The International Labour Organization (ILO) recommendations in NPE (2003 edition) referred to TVA as those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge, relating to various agricultural and non-agricultural occupations in various sectors of economic and social life. This is understood to mean an integral part of general education, a means of preparing for agricultural occupations and other fields and for effective participation in the world of work, an aspect of lifelong learning and preparation for responsible citizenship, an instrument for promoting environmentally sound, sustainable development and a method of alleviating poverty (Obanya, 2005). As a method of alleviating poverty, Agbulu and Olaitan (2002) explain that events have shown that austerity measures, Structural Adjustment Programmes and other economic policies as tried in Nigeria have not yet facilitated its economic recovery. This is because of the increasing rate of population explosion and consequent unemployment and un-employability posing social and economic problems to both Government and individuals. Thus, VTE is the key solution to reviving
Taiwo (1980) defined Vocational and Technical Education (VTE) as an aspect of life-long learning and preparation for responsible citizenship. It has the responsibility to provide the workforce that will conserve and utilize other resources for development. He explained that VTE gives graduates basic agricultural, technical versatility and general education which would open employment opportunities to them in ministries, industries, farms, processing industries or self-employment on one's farm and offer them further specialized agricultural training in agricultural training schools depending on their levels of training. He further explained that other forms of vocational technical training produce artisans spread throughout the country, who are self-employed and who train apprentices in their respective trades. Examples of agricultural skills and other trades acquired include agricultural mechanics, veterinary trainings, diverse plants and animals growing, auto-electricians and electricians, blacksmiths and welders, bricklayers and masons, building construction workers, painters, sewing, catering and domestic science, radio servicing, telecommunication, refrigerator servicing, air conditioning etc. It supplies intermediate man-power needs of individuals, farms, firms, companies and industries, business and commerce. It is not static but dynamic in nature, because the society is dynamic just as all educational and agricultural needs, giving rise to developmental changes. Agbenga (1992) noted that industrial transformation of urban and rural areas may remain an illusion if the skilled manpower required for industrial take-off is not produced.

The Importance of Vocational Agriculture and Technical Education to Material Resource Development in Nigeria

Material resource development is concerned with the supply and organization of substances or materials that can be used directly or transformed to other usable products (Encarta Dictionary, 2010). Nigeria is endowed with many natural and artificial material resources that have not been fully harnessed. Vocational Agriculture and Technical Education can harness and transform these resources into crude, refined, usable products which can be exported. Matching skills with labour needs in the labour markets has been an area of battle for vocational and technical education in most countries of the world. Employers strongly support the case for vocational elements within the school curriculum which encourages the development of attitudes, skills, knowledge and adequate understanding of how wealth is created in our society and an appropriate evaluation of the essential roles of industry and commerce (Jan and Kevin, 1988).

Industries, companies and most business outfits operate in societies/communities endowed with needed raw materials. This necessitates a stronger tie between vocational education and such societies to help people become more effective users of society's resources. Material resources, natural and man-
made, are developed through Vocational and Technical Education since it is the platform learners are taught how to manipulate or transform skills acquired.

**Problems of Vocational Technical Education**

- **Marginalization of Vocational Agriculture in the Education Sector:** Other technical vocations are emphasized at all levels of learning with great effort from Government to provide equipment/tools and to train the needed man-power to handle such tools, but Vocational Agriculture is not always given this consideration. Practical Agriculture is not emphasized; funds are not voted by Government to help schools establish and maintain functional school farms. A re-think on Vocational Agriculture is necessary if self-employment in an agrarian set-up like ours is to be a reality.

- **Funding Vocational and Technical Education:** Obanya, Nwangwu, Fagbulu, Derogba, Ayuodele, Olapeju, Yusufu and Kalu (2005) reported that education in Nigeria is under-funded, especially VTE. Materials and machines are costly and experts in these fields are expensive to produce; without them the nation can hardly move forward. Agbulu and Olaitan (2002) observed that Governments have been financing VTE right from start and since these funds are not enough, there is every need to look into other sources of financing VTE for a way forward. This will go along way in solving the problem of quality in VTE i.e. quality of staff, graduates and products.

- **Poor Attitude towards Vocational and Technical Education:** Obanya *et al.* (2005) observed that VTE remains hardly attractive to many students. Students are further discouraged by the trio of the schools which lack most basic tools, the dearth of qualified teachers to handle technical aspects, and parents who generally prefer their children/wards to study more 'prestigious' courses. PDF report explained that the so-called expatriate engineers who are paid unimaginable amounts of dollars to build the roads and bridges in Nigeria are graduates of VTE, yet Nigeria looks down on her own; this is one of the main reasons for low interest in VTE.

- **Way Forward for Vocational Agriculture and Technical Education:** To be prosperous and economically powerful has something to do with a nation's system of Science, Technical and Vocational Agriculture as seen in countries like Germany, China, Japan etc. For Nigeria to take a cue from these countries, serious attention needs to be given to certain issues that influence the growth and development of VTE. These are:

  - **Funding:** The 1979 Constitution of the Federal Republic of Nigeria vested
the management and funding of public education in the three tiers of Government (Federal, State and Local Governments). The funding needs of VTE are quite different from those of general education and one of the principles of VTE stipulates a minimum level of funding below which VTE cannot be effective and should not be attempted. Therefore, a commitment to other sources of funding as recommended by Agbulu et al. (2002) is inevitable. These are:

I. The administration of VTE should be severed from general education by the government, so that budgetary allocations and funds meant for it would be judiciously appropriated.

II. All multinational corporations and firms employing up to fifty technical staff should be required by law to contribute five per cent of their pre-tax profit to an endowment fund for VTE.

III. Products / produce from VTE should be sold and money used in replenishing the stock of expendable materials in VTE training programmes.

IV. The community, religious institutions, donor agencies and non-governmental organizations should be requested to set aside ten (10%) percent of their annual income or participate in the financing of VTE in their Local Government Areas.

* Teacher Training and Certification of VTE Programmes: VTE has distinct programmes depending on the objectives of each, for instance, the electrical electronics, fisheries, wood/metal works, crop production etc. Each should have a special teacher training school that awards certificates in such a distinct field. Minority programmes like remedial options and alternatives programmes (with shorter durations) should be introduced to cater for all competency-based skills ranging from those that do not attend school to drop-outs and the educated in the society (Asa, 1978).

* Accountability and Evaluation of Budgets for VTE Programmes: For any programme to be effective and successful, some form of evaluation must be part of the programme. These are measured in terms of cost-effectiveness and cost-benefit analysis, with reference to the learner and the society. School administrators, project managers, accounting officers, and the society are all involved in this evaluation and accountability exercise.
Recommendations
1. Vocational Agriculture should be given priority in educational programmes of the country, since it has a primary value in the life of the nation.

2. Emphasis should be placed on practical experience in the teaching and learning of Vocational and Technical Education, to ensure genuine development.

3. Every infrastructure/facility needed for an effective VTE programme should be provided, a challenge to individual's, government, religious organization and communities to face.

4. Vocational and Technical Education programmes to further include identification of new untapped material resources in the country.

5. As a means of attracting youths into VTE programmes in tertiary institutions, graduates should be aided with loans (in monetary terms and in the form of equipment or machines) for self-employment in their various fields. Banks are prepared for that, what is left is for individual institutions to liaise and stand as guarantors to students.

Conclusion
For any nation to be developed, its level of science, technical and vocational agriculture has to be commensurate with its population in order to create jobs for people, reduce hunger and poverty and to structurally develop.
REFERENCES


Encarta Dictionary (2010): Internet


189
SUSTAINABLE FISHERY DEVELOPMENT AND PRODUCTION IN BENUE STATE
Anju T., Makeri, V.A. and A.T. Gaffa

ABSTRACT
An attempt has been made from available statistics to estimate the fishery potentials of Benue State from natural water bodies (river, reservoirs and ponds). An analysis of fish demand and supply was done to show the market potentials of the fishery sub-sector in Nigeria. Constraints to fishery development and production in Benue State have been identified while strategies for enhancing fishery development and production have been recommended.

Introduction
The objective of this paper is to explore the potentials and prospectus of the fishery resources in Benue State and the possibility of exploiting these resources for increased fish production as a means of increasing protein availability.

The Nature of the Resource
According to Eyeson (1994) the aquatic living resources include:

i. Invertebrates such as Starfish, Jellyfish, Shellfish (e.g. Shrimps, Prawns, Lobsters) etc.

ii. Vertebrates, which include the true fish and aquatic mammals-Whales, Dolphins, Sea cows etc.

The true fishes which are cold-blooded animals typically possessing backbones, gills and fins (Kusemiju, 1991) are called “finfish” to distinguish them from “shellfish”. The fishery resource is a renewable though depletable natural resource.

Food/Nutritional Importance of Fish
Fish is a source of easily digestible, high-quality animal protein which offers nutritional qualities comparable to meat and diary products, and complements the high carbohydrate diets of many regions due to its high lysine content-an essential amino acid (FAO, 1991). Today, one billion people worldwide are reported to rely on fish as their main source of animal protein (Millstone and Lang, 2006).

Water Resources and Fishery/Aquaculture Potentials in Benue State
The River Benue has been reported to have an approximate surface area of 129,000ha (Ita et al., 1985) while the Benue flood plains have a total surface area of 312,000ha (Haughes and Hughes, 1991, cited in Ita, 1993). According to Ita (1993) the state is largely drained by the river Benue which is fed by rivers emanating both from the high central plateau and, also, from the Cameroun mountains and Ogoja hills.