

CONTRIBUTIONS OF AGRICULTURAL EDUCATION TO THE NATIONAL ECONOMIC EMPOWERMENT AND DEVELOPMENT STRATEGY (NEEDS) IN NIGERIA

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Abstract

The paper examined the overall objectives and strategies of NEEDS, that of agricultural and educational sectors. An attempt was then made to trace the links between these objectives and strategies with that of agricultural education as a vocational course. We found that all are projecting the same idea, competently, based learning, emphasis on practical skills, self-employability and self-sufficiency, entrepreneurship, empowerment of the private sector, value re-orientation to de-emphasise over-dependence on government, rural development and poverty reduction. With these ideas the paper went further to discuss the contribution agricultural education will make to NEEDS and the likely constraints that will limit these contributions, conclusion was made with some useful recommendations.

Introduction

Economic rehabilitation is a reform agenda. Reforms are essential for improving the society. They are targeted at national advancement, either by shift in paradigms of public service practice or by redirection of resources for better utility values leading to empowerment of particular segments of the society.

In recent times, Nigerian Government has come up with various agenda aimed at improving the "Nigerian economy, its public service, its healthcare, cultural values and the society in general, Ayodele (2004) discussed five of such reform programmes of the Federal Government which includes Monetization, New Pension Scheme, Due Process, Reform of the Judiciary, and NEEDS.

NEEDS represent the compendium of strategies for reforms in all sectors of the Nigerian society. It is "Nigeria's home-grown poverty reduction strategy (PRSPS). It is a medium term strategy that derives from the country's long term goals of poverty reduction, wealth creation, employment generation and value re-orientation (all pointers to economic development).

According to National Planning Commission -.NPC (2004) the problems identified as inhibiting growth in the Nigerian economy include macroeconomic policy inconsistency, instability and policy reversals, conflicts of macro-economic policy goals, public sector dominance in production and consumption, pervasive rent-seeking and corruption facilitated by government being the hub of economic activities. Others are infrastructure inadequacy and decay, high volatility of major economic aggregates, weak institutional capacity for economic policy management and coordination, unsustainability of private finance at all levels of government, lack of effective coordination among the tiers of government; and large debt overhang, among others.

According to Ajakaiye and Olomola (2003) Nigeria has witnessed decades of very slow development due to negative - to -slow growth and has been one of the weakest growing economies in the world on a per capita basis especially for the period of 1981-2000. The GDP grew by an average of 2.8 percent in the 1990s (leaving per capital growth rate at zero) and 3.6 percent (with a per capital growth rate lower than 0.8 percent per annum) between 1999-2003, This is lower than 4.2 percent capital growth rate needed to significantly reduce poverty and meet the 7 percent Millennium Development Goals (MDG) of halving incidence of poverty by 2015. Also unemployment is still high at 10.8 percent in 2003 meaning that about 6.4 million people are actively looking for jobs without getting any. The rate of urbanization (5.3 percent) is one of the highest in developing countries and although national poverty survey is in progress, projections from the 1996 poverty data suggest that poverty incidence could be as high as 70 percent Federal Office of Statistics - !OS, 1W: 30 and NPC, 2004:05).

The fundamental values upon which NEEDS rests include: "" Enterprise, competition and efficiency at all levels;

* Equity and care for the weak and vulnerable;

* Moral rectitude, respect for traditional values and extolling of our culture;

* A value system for public service that makes efficient and effective service delivery to the citizens; and

* Discipline at all levels of leadership.

The major strategies include integrated rural development programme to stem the rural-urban development migration, reversal of infrastructural decay, empowerment of the private sector to become competitive and lead the growth process; lifting up of the weak and vulnerable group; general Value-orientation of (he people to de-emphasise rein-seeking, over-dependence on government for literally everything, and expectations of something from nothing; to promote hard work, entrepreneurship, discipline, honesty and respect for traditional values (NPC, 21HM).

However, Anikweze (2004) asserts that a critical analysis of the NEEDS document gives an impression that education is marginalized and not accorded the priority it deserves. Education serves as a veritable vehicle for all forms of reforms -political, economic, social and cultural and link to future practices. In addition teacher education does not even get a mention in the original draft. However the dictates of democracy compelled government to throw the NEEDS document open for general discussion and additional inputs. The following strategies are suggested as input-, in the NEEDS:

1. Faithful implementation of the free, compulsory Universal Basic Education law to among others:
Improve education infrastructure.
Expand institutional capacity to produce quality manpower.
Expand total school enrolment to increase the literacy level.
2. Review of school curricula from primary to tertiary to incorporate vocational and entrepreneurial skills.
3. Re-tooling and repositioning of technical schools to be able to address the technical manpower needs of the economy.
4. Establishment of more vocational centres to encourage Nigerians to embrace vocational education.
5. Review of schools curricula all at all levels to incorporate the study of Information and Communication Technology (ICT) NPC - NEEDS (2004).

NEEDS is multi-sectoral and the agricultural sector received prominent attention because of the primary role it performs in the society. A visible link between agriculture and education is agricultural education. What is agricultural education? What are its philosophy and objectives? How can agricultural education contribute to agricultural sector reforms in the NEEDS? What constraints will limit contributions of agricultural education to the NEEDS? These are pertinent questions that this paper will attempt to provide answers. In addition the paper will initially discuss the state of agriculture in Nigerian economy and NEEDS agenda for the agricultural sector.

Agriculture in the Nigerian Economy and NEEDS Agenda for the Sector

One of the sectors that is accorded priority attention in the NEEDS is Agriculture. This is because in spite of the dominant role of the petroleum sector as the major foreign exchange earner, agriculture remains the mainstay of the economy, the real sector is dominated by the primary production - agriculture; (41%). Apart from contributing the largest share of the GDP, it is the largest non-oil export earner, the largest employer of labour and a key contributor to wealth creation and poverty alleviation, a large percentage of the population derive their income from agriculture and related activities (CBN, 2003).

The priority to agriculture (especially to improve the productivity of peasant farmers) is a key element of the poverty reduction strategy. A large population, many of whom live in the rural areas remain poor. Over 50 percent of the poor are in agriculture (Federal Office of Statistics - FOS, 1999b). The agricultural sector is predominantly peasantry with low and declining productivity. Over the years the rate of growth in agricultural production has stagnated, and failed to keep pace with the needs of a rapidly growing population, resulting in a progressive rise in import bills for food and industrial raw materials. The potentials of the agribusiness sector as a major employer of the growing labour force and earner of foreign exchange have been eroded (Kpernyam, 1997).

Policy Thrust of Agriculture

Because of the foregoing in agriculture, the following among others are the NEEDS policy thrust:

- (a) Providing the right policy environment and vigorously targeted incentives for private sector investment in the sector: Government will implement a new agricultural and

- rural development policy aimed at addressing the foregoing constraints.
- (b) Fostering effective linkage with industry to achieve maximum value addition/process for export.
 - (c) Creation of more agricultural rural employment opportunities to increase the income of the farmers and rural dwellers through the modernization of production and creation of an agricultural sector that is responsive to the demands and realities of the Nigerian economy
 - (d) Reverse the trend in import of food, (which stood at 14.5% of total imports at end of 2001), through a progressive programme for agricultural expansion.
 - (e) Strive towards food security and generate surplus for the export market (NPC- NEEDS 2004: 31).

Among NEEDS strategies to achieve these policies include:

1. Strengthening of agricultural research and revitalization of the agricultural training and streamlining the extension delivery system including the involvement of non-governmental organisation (NGOs) and opinion leaders in extension delivery through capacity building and promotion of improved technologies.
2. Encouraging states to develop projects of model rural communities and farm settlement adequately provided with feeder roads, boreholes, vocational training, simple farm tools and equipment, alternative energy source and communication centres for a wholesome life to reduce rural-urban drift.
3. Promotion of all season farming through rainfall and irrigated farming with emphasis on fadama agriculture as well as implementation of the programme for the massive production of tree crop seedlings (NPC- NEEDS, 2004).

Meaning and Objectives of Agricultural Education

Agricultural Education is the training of learners in the processes of agricultural productivity as well as in the technique for the [caching of agriculture, it is teacher preparation in agricultural production and in pedagogical skills in agricultural subject matter areas (Olaitan, 1984).

Agwubuike (1997) defined agricultural education as the type of education dial is employed in training learners in the process of agricultural productivity, as well as in the technique for the teaching of agriculture.

Agricultural education takes place al two levels namely: informal and formal levels. The Informal Level is when skills are acquired through out of school indirect learning by doing by agricultural practitioners. Learning is incidental and natural (Kpernyam, 1997). For example child watching the father till the soil. The formal is when the learner acquires the training and skills through the educational school system.

Agriculture is studied at various levels in the Nigerian educational system as follows:

- (i) Agricultural Science in Primary Schools.
- (ii) Agricultural Science in Secondary Schools and Teacher Training Colleges.
- (iii) Vocational Agriculture in Colleges of Agriculture, Polytechnics and Research Institutions,
- (iv) Agricultural Education in Colleges of education and Faculties of Education in the Universities intra and inter-disciplinary studies in agriculture in faculties of Agriculture in the Universities.

Objectives

According to Olaitan (1984:10) agricultural education is necessary for the following objectives:

1. To provide students with adequate skills that will help them make a living and progressively advance in farming;
2. To provide increase in food production through the improvement of agricultural production techniques;
3. To provide occupational entry-level skills in agriculture to interested students m secondary school level;
4. To prepare students for conservation of soil and older natural resources; and
5. To prepare students adequately for producing and marketing of farm commodities efficiently.

Similarly NCCE Minimum Standard (2002:05) identified the philosophy of Agricultural Education Programme as tied with the national philosophy on agriculture for self-reliance based on

provision of teachers and endowed with a balanced approach between principles and practice of agriculture for academic and vocational ends. It went further to describe the objectives as:

1. To prepare teachers with the right attitude to, and knowledge/professional competence in vocational agriculture;
2. To produce teachers who will be capable of motivating pupils to acquire interest in agriculture;
3. To develop in the student teachers the appropriate communication skills for effective transmission of agricultural information to the students in the context of their environment;
4. To equip the student - teacher with adequate knowledge and ability to establish and manage a model school farm effectively; and
5. To provide a sound background to enhance further academic and professional progression of the student teacher.

Contributions of Agricultural Education to NEEDS

A close observation of the objectives and strategies of the educational and agricultural sector of NEEDS; the NEEDS, overall objectives and strategies versus agricultural education objectives will reveal common ideas running through them. These include competence based learning; emphasis on practical skills; self-employability and self-sufficiency training; empowerment of the private sector to become competitive and lead the growth process; entrepreneurship; value re-orientation to do emphasize rent-seeking rural development and poverty reduction.

These objectives and strategies have been areas of emphasis by agricultural educators (Philipps, 1980; Agusiobo, 1983; Olaitan, 1984; and Agwubuike, 1997). They believe that these objectives and strategies will help in no small measure in the nation's quest for economic development. It is a laudable development that these ideas have now been put together in a national document (NEEDS) for implementation. However some explanations will be made to buttress these contributions.

Our agricultural education should lay more emphasis on acquisition of farming skills rather than students' ability to memorize. Agusiobo (1983) stated that jobs and task given to the learners in vocational agriculture while in training should not be mere exercises but real jobs with real tools and machines so that appropriate skills are acquired and real products turned out. Agricultural education should be competency - based, vocationally and skill oriented. Agwubuike (1997) asserts that if students learn about farming in the classroom without carrying out the actual farm work, they will end up learning about farming and farming problems. Hence, to make agricultural instruction practical, relevant and realistic, students should carry their learning to the doing level.

Agricultural educators should make their lessons lively and interesting and include such activities as practical demonstrations, projects, field trips, workshop, and exhibition. The students learn more and better when there is interest, needs are being satisfied, thinking is stimulated and there is active participation and a favourable climate of success is maintained. A group discovery teaching approach for concept formulation and a student oriented strategy or the community of inquiry (Synergy) sharing approach to learning as suggested by Anih (2004) should be adopted where learners are expected to plan and manage the task while the teacher plays a supervisory role. The school on their part should have a good policy for operating the school farm in order to ensure effective utilisation of the farm for educational purposes.

'According to Anyakoha (1997) agricultural education has a role to play in training potential entrepreneurs. This is very vital because entrepreneurship enhances self-reliance which will eventually culminate in operating a business like the farm successfully. Entrepreneurship skills in agricultural education should be taught right from the primary school level alongside with the agricultural production. Such skills will encourage the youths to imbibe the culture of hard work, dedication to duty, competence, contentment including the technical "know-how" so that true national agricultural development will emerge. Igbo (2004) added that small businesses are engines of economic development and growth. It is hoped that once the teacher trainers are able to acquire entrepreneurial skills which can lead to establishment of small business, half of the problems of the nation in terms of unemployment would have been solved.

Self-employment or self-reliance is very important to the teeming Nigerian youths because government jobs are no longer easily available. Adeolu (1997) reports that the past has always been directed towards securing white-collar jobs or at least employment into civil services after graduation from an educational institution, more emphasis being placed on office work. Large numbers of graduates (secondary and

tertiary institutions) are being turned out from various institutions of learning while working opportunities have not correspondingly expanded. The nation has succeeded only in creating mass unemployment in this regard. Agricultural education has duty in modern Nigeria to prepare graduates or other individuals for self-employment.

Whatever the short-comings of the early programmes might have been, the focus with the NEEDS should be to achieve self-sustaining agricultural sector rather than training for jobs that are hard to come by. The training should be with the focus of creating jobs within agriculture. Ogunrinde (1992) suggested that the nation should be mindful of emerging new needs within the agricultural sector. Such emerging needs include: better attitudes towards agriculture; life-long learning of agricultural subject matter; better occupation; better performance level; development of country from the present (arming practice to commercial agriculture; and development of new occupations within the agricultural sector.

Movement from rural areas to cities is inevitable and can only be reduced to a minimum if rural community is improved. Youth's attitude towards rural life and farming is determined by actual rural conditions rather than by what is taught at school. Hence improved rural conditions through supply of some basic amenities like potable water, health facilities, market, will make youths' aspirations realistic. Agwubuike (1997) similarly stated that the challenge for agricultural education would be to make rural life and rural agriculture more desirable and more interesting.

Most often attention has been focused on agricultural education under formal institutional system like schools, colleges and universities in which the youth constitute the learners. These youths hardly return to their villages after completion of their studies. The new reforms (NEEDS) must include education of the rural farmers and their families. These people constitute majority of the farming population, and any agricultural education that ignores them will be inadequate and ineffective. One of the challenges of the new reforms (NEEDS) will therefore be the extension of agricultural education programme to the adult farmers, particularly the women.

According to Olaitan (1995) poverty in rural communities can be traced to two factors: low productivity and ignorance. Productivity in agriculture, technical trades, commerce and local craft is low because rural people employ traditional methods in production process. Improved productive capacity requires that these rural people are equipped with skills and abilities which would enable them make effective use of modern techniques and technologies in their farm production.

As a result of ignorance, many rural dwellers blame their poverty on government action or inaction. They carry out their arming without seeking to know the latest developments and novel techniques in the field. Presently government tries to ameliorate the level of ignorance of the rural dwellers by providing them with extension services but this has been most ineffective due to inadequate funding and staffing (Olaitan, 1995). Agricultural education will help rural farmers keep abreast of development in farming and know the varieties of government assistance available to them. Agricultural education will also foster a clear understanding of government actions including laws and regulations, and how they affect the agricultural sector. Some specific areas that farmers need to be educated include land laws and reforms as it relates to agriculture, application of new technologies and techniques in farming, sources of inputs for farming, organisation of cooperative societies, harvesting and ways of reducing losses in harvesting and processing. Farmers also need to be educated on record keeping, accounting, decision-making and profitable marketing of their produce. The specific needs of farmers can be done through adult education programmes, agricultural radio and television broadcasting in local languages, and extension services.

Possible Constraints that will Limit Agricultural Education Contributions to NEEDS

That agricultural education will contribute to NEEDS in the rehabilitation of the Nigerian economy especially in the agriculture and education sectors is not in doubt. However there are constraints that may limit these contributions. Some of them are as follows:

Implementation: Past experience foretold that Nigeria had formulated so many laudable policies and programmes. Some of these include the 6-3-3-4 system of education, rural development policy, agricultural policy, national policy on environment, among others. The programmes include Back-to-Land, Operation Feed Yourself, Operation Feed the Nation, Green Revolution, School-to-Land, Rural Development Farms, Farm Settlement Scheme, Accelerated Food Development Programme and so on. Often these policies and programmes are over-politicised, bedeviled by corruption, filled with bureaucratic bottlenecks, haphazardly implemented, starved of fund and often lack continuity if there is change in government. We hope that NEEDS will not experience the same fate.

Emphasis on Certificate: Most often prescribed syllabus or minimum standard is rigidly followed in agricultural education because at the end students are subjected to a comprehensive examination. This makes students to study courses not even relevant to their environment in order to pass their examination and secure a certificate to the detriment of actual ability to perform. Learning is so academic, so abstract and theoretical. This according to Nwandu (2002) will make learners to lack positive challenge and be more cognitive and reactive instinct. They become job seeking oriented instead of self-employment and risk-taking orientation. The consequences of this type of education will be the rising of expectations among the youths, educating the youths out of the society, and mass exodus of the youths from rural areas to urban in search of jobs that do not exist.

Adequate Funding: For training to be effective, the learning environment for agricultural education must be the same as that in which the learner will eventually work. The learning environment includes facilities like laboratory, school farm, vocational centres for adult education among others. These facilities must be equipped with modern farming machines, equipment and tools, instructional materials, chemicals and other farm inputs. All these require funds to establish purchase and maintain the facilities. In addition more teachers have to be trained and those in service retrained in order to get them acquainted with the new innovations in the world of work. All these require funds. In fact funding will likely be one of the main constraints that may hinder the full implementation of the NEEDS agenda if it is not given the adequate attention that it deserves.

Infrastructural Facilities: Schools where learners are to be trained need to be equipped with modern machines, equipment and technology to create the right environment for the lecturers. There is also need to build and equip vocational centres in rural areas where adult education will be given to the adult farmers who constitute the majority of the farming population. There are problems of transportation and communication among others. These- are necessary to help not only in training but also in retraining of the farming populace in their rural communities instead of migration to cities.

Recommendations

1. For the agriculture and agricultural education sector of NEEDS to be successfully implemented, there must be credit facility available, to youth and adult intending farmers. Most of the graduates do not have initial capital to establish an agribusiness. There should be a programme designed on how credit can be obtained by intending farmers and method of repayment of such credit.
2. Vocational centres should be established in the rural areas to cater for the training needs of the adult farmers and their families on new innovations in agricultural production. The vocational centres can also serve as agro-service centres where modern farm inputs like machines, equipment, chemicals and fertilizers can be stored for hire or purchase by farmers and farmers' cooperative societies.
3. There should be professional improvement of agricultural educators. This will help improve their skills and competence in agriculture. It will also help to keep them abreast of the modern innovations in agriculture and education. The improvement can be in form of attending higher courses, agricultural shows, seminars and conferences, exhibitions among others.
4. Since graduates of agricultural education have entrepreneurial skills but have problem of funds, they can be encouraged to combine and pool their resources together to start an agribusiness enterprise.
5. There should be provision of infrastructural facilities like potable water, electricity, health centres, transportation, markets, communication (information technology) among others that will improve the standard of living of the rural dwellers, improve their capital base and reduce rural to urban migration.

Conclusions

The paper has been able to establish that NEEDS is a well-articulated multi-sectoral reform. Its aim is to resuscitate and bring about the much desired sustainable growth and development in the Nigerian economy. Agriculture as one of the leading sectors of the reform is expected to provide jobs for majority of the citizenry, make people less dependent on government, rekindle entrepreneurial spirit, lead

private sector growth, to reduce the rate of urbanization and above all contribute substantially to sustainable average growth rate of GOP that will help meet the United Nations Millennium Development Goal (MDG) target of halving the incidence of poverty by 2015. Agricultural education has similar philosophy and objectives in the training of individuals for the world of work.

However it is important to add that due to the huge financial involvement that will follow the implementation of NEEDS and the agricultural education sector in particular, adequate attention is required in both monitoring and evaluation at all aspects of the programme. Efforts should be made to sustain the tempo. Allowance should also be made forcomintiily in event of change in administration,

References

- Adeolu, A.S. (1997). Functional Agricultural Education for Self-Employment, Sources and Location of Career Opportunities in Agriculture. A Paper Presented at the Annual National, Conference of the Nigerian Association of Agricultural Educators, 6th - 9th May, 1997.
- Agusiobo, O.N. (1983). Strategies for Teaching Agricultural Science in Plateau Stale of Nigeria. *Vocational Education Journal*. UNN 4(1) p g . 11
- Agwubike, C.C. (1997). The Challenges of Agricultural Education in the Year 2000. A Lead Paper Presented at the Annual Conference of the National Association of Agricultural Educators at Federal College of Education (Technical) Asaba, 6lh-9lh May, 1997.
- Ajakaiye, D.O. and Olumola, A.S. (2003). *Poverty In Nigeria: A A-Multi- Dimensional Perspective*. Ibadan:NISER.
- Anih, S. (2004). Modern Approaches To Classroom Learning, A Resource Paper Presented at a Workshop on Capacity Building in Colleges of Education Organized by ETF and NCKK at Federal College Of Education (Technical) Asaba, 9th - 14lh, August, 2004.
- Anikweze, C.M. (2004). Educational Policies, Practices and Strategies for Achieving Reforms in Nigeria. A Resource Paper Presented at a Workshop on Capacity Building in College of Education, Organized by ETF and NCCE at Federal College of Education (Technical) Asaba, 9lh - 14th August, 2004.
- Anyakoha, E.U. (1997). Entrepreneurship and Vocational and Technical Education: Conlemporary Challenges and the Way Forward, *Entrepreneurs/lip Practices in Education (Ed)*, Umunze Research & Publication Unit, Federal College of Education (Technical) Umunze.
- Ayodele, B. (2004)..Monetization, New Pension Scheme, Due Process, Reform of the Judiciary and NEEDS. *Sunday Champion Newspapers* April 11, Page 23
- C.B.N/Central Bank of Nigeria (2003). *Annual Report and Statement of Accounts for the Year Ended 31st December, 2003*. Lagos: Central Bank Nigeria.
- Federal Office of Statistics (FOS),(1999). *Poverty Profile for Nigeria 1986-1996*. Lagos: FOS
FOS (1999b). *Poverty and Agricultural Sector in Nigeria*. Lagos: FOS
- Igbo, C.A. (2004). Entrepreneurship Initiatives in Colleges of Education Programmes. A Resource Paper Presented at a Workshop on Capacity Building in Colleges of Education Organised by ETF/NCCE at Federal College of Education (Technical) Asaba, 9th - 14th August 2004.
- Kpernyam, C.S. (1997). Agricultural Education for Sustainable Development of Nigeria in the Year 2000. A Paper Presented at the Annual Conference of National Association of Agricultural Educators at Federal College of Education (Technical) Asaba.

- NCCE/National Commission for Colleges of Education (2002). *Minimum Standard* for Nigeria Certificate in Education in Agricultural Education*. Abuja: NCCE Public actions.
- NFC/National Planning Commission (2004). *National Economic Development Strategy - NEEDS*. Abuja: National Planning Commission.
- Nwandu, P.I. (2002). Refocusing Agricultural Science in Secondary School in Delta State, In Oriailb, S. O. and Igborgbor, G. C. (eds) *Refocusing Education in Nigeria*. Benin City: Zekol Graphics.
- Ogunrinde, S.I. (1992). Competency - Based Education: A Baseline for Vocational and Technical Agriculture in Nigeria. A Paper Presented at the School Seminar Series, Department of Agriculture, ACE Ondo, December 1992.
- Olaitan, S.O. (1984). *Agricultural Education in the Tropics*. London: Macmillan Publishers.
- Olaitan, S.O. (1995). Promoting Skill Development and Productivity Through Vocational Education in Rural Nigeria. In Eboh, E.C; Okoye, and Ayiehi, D, (eds). *Rural Development in Nigeria: Concepts, Processes and Prospects*. Enugu: Auto-Century Publishing Company.
- Phipps, L.J. (1980). *Handbook on Agncithurai Education in Public Schools*. Illinois: Interstate Printers and Publishers.