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TOPIC: *Vocational/Technological Education for Accelerated Wealth Creation: Critical Issues Facing the Nation*

Mr. Chairman, Director Institute of Adult Education, Distinguished Ladies and Gentlemen:

I will like to express my gratitude to the organisers for writing me to participate in the New Year School which has become the nation's flagship. The topic assigned to was vocational/technical education for accelerated wealth creation: Critical issues facing the nation.

Technical and Vocational education and training (TVET) has always been an important catalyst in wealth creation in all countries. At senior high school and polytechnics, it prepares middle-level personnel and at the university level, engineers and technologists for higher management positions (UNESCO, Undated). Graduates of vocational and technical education are equipped with competencies for specific occupations or productive activities in the various sectors of the social and economic life of the country, notably agriculture, industry and commerce. These sectors are very important pillars of wealth creation. Countries that have achieved middle-income status have given special attention to education in general and in particular, vocational and technical education. I have the conviction that our country will achieve very little in our march to a middle-income status if we do not give the needed attention to vocational and technical education! This will require the development of adequate human resource.

We need to examine a few statistics on the current state of our human capital formation.

The examination of a few indicators may be helpful.

- Statistics indicate that only 1.6% of the total educated labour force in Ghana has some qualification in vocational and technical education.
- The 2000 census indicated that 68% of the employed population are self-employed; that is, these people own their own enterprises and have no employees. They are involved in activities such as small scale fishing, farming, distributive trade and cottage industry. Only 5.2 % of employed population is self-employed with one or more employees.
- From the occupational standpoint, about 48% of the economically active population are occupationally involved in agriculture as mainly small-hold farmers. Only 8.6% of the economically active population is professional and technical while 0.3% are at the administrative and management level.
- Again from the census, about 40% of Ghanaians (6 years and above) have never been to school. Only 3% of the population had tertiary level education whereas only about 11% had secondary/vocational technical education.

It is clear that based on the employment status, the low professional and technical skill capacity of the economy, and low percentage of the population with tertiary education and technical/vocational education, the job creation potential and capacity of the economy is extremely low.

This is compounded by the fact that TVET has for a long time not been given the needed attention and recognition. For example, there are only 23 public technical and 29 vocational institutes compared to 474 public senior secondary schools. There is also negative public attitude towards TVET which makes TVET the last option for many students. In a survey of teachers in public TVET institutions in 2002, all the 87 respondents did not want their children to pursue programmes in TVET. Government should put in place a mechanism to sensitize the public on the importance of TVET as an “alternative educational opportunity for school leavers and as a means to produce human capital needed for accelerated growth.” The media should play a key role in highlighting the importance of TVET in wealth creation in this age of technology. The institutions themselves should also embark on awareness week, exhibitions and open days. In addition, salaries of graduates of TVET should be attractive and comparable to people of equivalent level of education.

However, government has identified TVET as priority for addressing poverty reduction in the GPRS document as well as in the tool for human capital formation for realizing the achievement of bits policy of Golden Age of Business. TVET is also recognised as necessary for the promotion of the President’s Special Initiatives, especially those that are agro-based. All these are geared towards wealth creation. For vocational and technical education to play a meaningful role in these, certain critical issues need to be addressed. The issues are many but it is unrealistic to deal with all of them in a forty-minute lecture. Therefore, in this paper, I will limit myself to the following issues:

- Lack of comprehensive national policy on vocational and technical education;
- Inadequate funding;
- Lack of appropriate equipment and facilities

- Lack of entrepreneurship education and self-employment courses in the curriculum of vocational and technical education;
- Mismatch between demand and supply of skills;
- Lack of state involvement in apprenticeship/skills training
- Lack of Information and Communication Technology (ICT) in the curriculum of vocational and technical education.

Lack of Comprehensive National Policy

Currently, there are over 160 public TVET institutions operating under different government ministries and agencies and well over 270 private TVET institutions under various NGOs, religious bodies and individual proprietors, each doing its own thing. There is therefore, a fragmentation of the TVET sector. This situation does not allow for quality training that can be compared across different institutions. The delivery of vocational and technical education must therefore be guided by a policy framework that would enable the training institutions turn out quality graduates who can contribute meaningfully towards wealth creation. Presently, there is no comprehensive policy on vocational and technical education to address such issues as orientation to economic demands, guiding principles, environmental protection, sustainable development, funding, equity, access, articulation, certification, equivalencies of qualifications, placement of graduates, teacher preparation and recruitment, etc. As part of the policy, there must be a body set up to oversee the management of TVET in the country.

Mr. Chairman, it is refreshing to note that the Government, in the White Paper, accepted the Education Review Committee's recommendation for the setting up of a National Council for Technical and Vocational Education and Training but to be placed under the

Ministry of Education, Youth and Sports (MOEYS) to guide policies and sensitize the public on the government's new vision for technical, agriculture and vocational education and training. Under this body, shall be:

- the Ghana National Qualifications Authority as the accreditation and certification body,
- Industrial Training Advisory Board to determine competencies and standards, and
- Training Quality Assurance Board to provide accreditation services and monitor/evaluate TVET delivery agencies.

Inadequate Funding

The issue of funding is closely linked to the quality of training and therefore wealth creation. Vocational and technical education has high per capita cost because it requires specialized equipment, tools and training materials. The government is the major source of funding vocational and technical education, covering salaries of personnel, utility charges, running cost of vehicles, maintenance of facilities, training materials, acquisition of tools and equipment, etc. The total budget allocation of MOEYS to technical institutes has been 1% for sometime now and the allocation from MMDE budget to vocational institutes is 7.5% of the total budget. This is clearly inadequate. To compound the issue, government funding has been dwindling due to budgetary constraints and increasing enrolment.

Non-governmental sources of funding TVET include international grants and donations, payments from trainees (fees) and the Parent Teacher Association. Contributions from these sources are however woefully inadequate in meeting the requirements of TVET.

The activities of vocational and technical institutions are therefore severely constrained by poor funding resulting in the use of inappropriate tools and equipment, scanty training materials, poor infrastructure and other physical facilities. Thus, the quality of training being offered is compromised and many are those who pass out of training with inadequate skills. This situation reduces graduates' chances of employment in the labour market and hence their contribution to wealth creation.

Mr. Chairman, Ladies and Gentlemen, there is no doubt that we really need to explore other sustainable sources of funding vocational and technical education. I will like to examine three sources namely, levy/tax on employers, levy/tax on graduates and income generating activities. Even though industries are the end users of products of vocational and technical institutions, there is no legislation obliging them to fund training programmes. A training levy system, based on turnover or on the payroll, should therefore be established to raise funds from employers. The Government could offer deductions in these contributions as incentive in relation to training carried out by employers. Through legislation, graduates who are employed could also be made to contribute towards the funding of training. Let me caution here that funds realized from both employers and graduates must not be paid into the Consolidated Fund so that they could be used solely to finance vocational and technical education. Apart from the proposed levies, training institutions could establish Production Units to produce and sell their products or their services. Thus, the institutions themselves become active and direct participants of wealth creation. In addition to helping to raise funds for the training institutions, the establishment of Production Units is also part of efforts to direct training towards self-employment. The trainees work in a simulated environment close to what pertains in industry. This inculcates in the trainees punctuality, confidence, quality

awareness, the ability to cooperate and to work fast and efficiently. It is important that in developing and executing income-generating activities, the following guidelines be observed:

- Income-generating activities never impair the training objective and the courses taught.
- Income-generating activities may not impose unfair competition.
- Staff and trainees are adequately remunerated to sustain their interest.

Lack Appropriate Equipment and Facilities

The type of tools and equipment in use in our vocational and technical institutes are old, obsolete and not in tune with current industrial practices. As a result, there is a gap between the skills acquired whilst in training and the skills needed by industry to create wealth. The Ghana-Netherlands Agreement to provide modern equipment to establish 20 vocational/technical resource centres to enhance training facilities is in the right direction. The resource centres provide opportunities for skill training and problem-solving, an essential ingredient for wealth creation. However, to date not all the centres have been set up. Government must ensure that all the 20 centres are set up by the end of next year. In addition to the 20 centres, government must take steps to equip all public TVET institutions including Integrated Community Centres for Employable Skills (ICCES).

An alternate way of exposing trainees to modern and appropriate equipment is to link them to industries. To achieve this, government should facilitate the establishment of partnerships between TVET institutions and industry. One advantage of such

partnerships is the elimination of the large capital outlay required` to simulate industrial practices in training institutions.

Training that is neither Standards-driven nor Performance-based

Mr. Chairman, TVET delivery in the country is neither standards-driven nor performance-based, Industry, however, requires that every trainee achieves the level of success needed to perform the job. The competency-based approach to technical and vocational education and training has therefore been the dominant curriculum model for many years in many parts of the world, especially in the United States. Such an approach is standards-driven and performance-based. One fundamental concepts of competency-based training is its orientation toward a competency-based curriculum, structured from the perspective of industry needs and standards, and delivered using a pedagogy that relies on pre-determined performance objectives (Finch & Crunkiiton, 1999). The competency-based approach is also characterised by the use of performance objectives and on-going criterion-referenced evaluation until a task, whether cognitive or psychomotor, is mastered. Thus, the basic essential elements consist of functional analysis of the occupational roles, translation of these roles (“competencies”) into outcomes, and assessment of trainees’ progress in these outcomes based on demonstrated performance.

Because competency-based training is based on the principle of analysing complex skills, breaking them down into their component tasks, and then teaching them in a logically designed series of performance objectives, it is particularly well suited to the teaching and learning of skills and its adoption in the TVET delivery in the country will enhance the quality of training. However, before its adoption, we need to develop

National Occupational Standards and Modules of Employable Skills in close partnership with industry. These will form the basis of the preparation of the competency-based curriculum for TVET delivery in the country.

Inadequate Qualified Professional Teachers

Mr. Chairman, effective teaching and learning in our TVET institutions depends on adequate number of professional teachers who are competent in the speciality that is to be taught and also know how to teach. Unfortunately, vocational and technical institutions are faced with inadequate teaching staff and the quality of the instructors is also generally low. There is, therefore, the need to increase the number and quality of TVET teachers. Currently, only the Kumasi Campus of the University of Education, Winneba and ten Teacher Training Colleges (Ada Training College, Akatsi Training College, Bagabaga Training College, Komenda Training College, Mampong Technical Teachers College, N.J. Ahmadiya Training College, Presbyterian Training College, St. John Bosco's Training College, St. Joseph's Training College and Wiawso Training College) prepares teachers for the basic level, the TTCs, technical institutions, secondary technical schools, the polytechnics, NVTIs, OICs, etc.

Mr. Chairman, we cannot talk about the problem of inadequate qualified professional teachers without mentioning the problem of teacher retention. Many young TVET teachers take up appointment as a sort of transitional measure in search of other career opportunities. Lack of certain incentives and motivation that are enjoyed by their counterparts in other public sectors cause the teachers to leave the profession

prematurely. Competitive salaries and other incentives must therefore be provided to attract and retain TVET teachers.

Lack of Entrepreneurship Education and Self-Employment Courses in the Curriculum

Mr. Chairman, Distinguished Ladies and Gentlemen, vocational and technical programmes in the country seem to prepare students, both technically and psychologically, for wage-employment either in the modern sector or in government. However, these two sectors together can absorb only a small fraction of the total labour force and thus resulting in unemployment and underemployment among the youth. Definitely, the unemployed youth cannot be part of any accelerated wealth creation crusade.

Many graduates of vocational and technical training programmes have the potential to become self-employed if they had the knowledge and skills of what it takes to start and operate an enterprise. Trainees of vocational and technical institutions acquire vocational and technical skills, which can be utilized for self-employment and enterprise creation. For this to be realized, entrepreneurship education must be introduced to equip students with knowledge and skills that could enable them identify business opportunities, start, successfully manage and expand an enterprise. Entrepreneurship education would thus enable some graduates of vocational and technical programmes to go into self-employment by initiating new business ventures and ultimately becoming employers as their businesses grow. Other added benefits of introducing entrepreneurship education will be stemming rural-urban migration and improving the stature of training institutions which suffer from an uncertain record of job placement of

their graduates. Above all, the introduction of entrepreneurship education could trigger wealth creation in the training institutions through the establishment of Small Business Centres. These centres will be located in the training institutions and will operate as real enterprises providing start-up training to entrepreneurship education graduates and extension services to practising entrepreneurs. These centres could also provide linkage between the training institutions, the business community and appropriate assisting agencies or experts. If run well, the Small Business Centres could become a major source of generating income for the training institutions. The seed capital for the centres could come from the District Assembly Common Fund, the Heavily Indebted Poor Countries (HIPC) Fund or any fund relating to the Ghana Poverty Reduction Strategy currently being carried by the government. Such a move falls in line with the government's strategy of empowering an entrepreneurial private sector.

Mr. Chairman, the introduction of entrepreneurship education into the curriculum of vocational and technical institutions, will among other factors, depend on the availability of trained personnel, suitable literature and relevant training materials. I am happy to say that the Department of Technology Education and the Department of Business Education of the Kumasi Campus of the University of Education, Winneba have Entrepreneurship Education Course in their programmes. Thus, the two departments turn out teachers capable of teaching Entrepreneurship Education in vocational and technical schools.

Mr. Chairman, Ladies and Gentlemen, let me note here that if entrepreneurship education is to bring about any meaningful wealth creation, then graduates who want to establish their businesses must be supported in some way, especially those with

promising business ideas. Such assistance could include tax holidays, land and equipment acquisition and credit facilities. Presently, the Government has instituted an annual competition aimed at identifying young entrepreneurs, to provide them with technical and financial support to begin their own businesses. Dubbed "Growing the Young Entrepreneurs," the annual competition involves submission of business plans by graduates of any of the tertiary institutions in the country to an adjudicating panel for vetting. The Ministry of Private Sector Development funds the first three winning business plans whilst the others that are adjudged viable but are not selected are assisted to raise funds from banks. I am also aware that some NGOs have also been undertaking similar exercises. When entrepreneurship education is made an integral part of vocational and technical programmes, similar competitions should be organised at the district level and assistance should be extended to graduates with promising business ideas. This could go a long way in promoting wealth creation.

Mr Chairman, the entrepreneur's role in wealth creation cannot be over emphasised. One of the pioneer researchers in entrepreneurship, McClelland (1961), in his book "The Achieving Society" attested to this fact. His findings about what contributed to economic growth in various societies were contested at the time. McClelland saw economic development as resulting from the activities of individuals (entrepreneurs) and rejected the idea that economic development was caused by exogenous factors such as material resources. McClelland further provided a link between the individual (entrepreneur) and economic growth in the form of psychological motive, the need to achieve which he defined as "the desire to do well, not so much for the sake of social recognition or prestige, but to obtain an inner feeling of accomplishment." He hypothesised that a high need for achievement would cause individuals to behave in an

entrepreneurial way and thus increase economic growth. McClelland emphasised that achievement motivation was not essentially in-born but could be developed or acquired through education. Studies conducted by other researchers confirm McClelland's findings. Additionally, the level of economic development of some countries that are not so much endowed with material resources has vindicated David McClelland. Clearly, entrepreneurship education could be used to mobilize and stimulate the use of entrepreneurial talents for wealth creation.

Lack of State Involvement in Apprenticeship/Skills Training

A large number of youth drop out of primary, JSS and SSS and are virtually left to find their feet in the world of work. The notion of wealth creation requires that every individual becomes productive in his adult life. Apprenticeship which allows the individual to acquire proficiency in a number of skill areas is however organised at a level that does not allow it to be a source of wealth creation yet it could be a very powerful source of wealth creation. Apprenticeship has for a long time been dominated by the private sector. The government White Paper on the Report of the Education Review Committee has indicated the State's commitment to partner the private sector to promote apprenticeship programmes. Government intends to constitute a National Apprentice Training Board to "oversee and regulate apprentice training and handle issues concerning registration, content, duration and certification." The White Paper also suggests the need to formalize community-based apprenticeship schemes in all districts as well as the provision of support to institutions such GRATIS, ICCES, and OIC. These structures could assist in creating the appropriate platform for training high calibre craftsmen and women who can help create wealth.

Mismatch Between Demand and Supply of Skills.

For vocational and technical education to play a meaningful role in wealth creation, it should be relevant, in the sense that, it should provide training that corresponds to the needs of the labour market, i. e. a system that is demand driven. Unfortunately, vocational and technical programmes in the country are presently, supply driven and not demand driven. Supply driven training almost certainly will result in giving to many students the wrong (unemployable) skills and thus resulting in training for unemployment, which not only wastes students' time, but also an inefficient use of government funding. An efficient training system is not achieved if graduates do not use and benefit from the skills acquired.

Mr. Chairman, Ladies and Gentlemen, explanations for the lack of relevance are likely to include:

- Needs assessment that is inadequate or based on incorrect assumptions about labour market opportunities;
- Lack of linkages between training institutions and potential skill users (industry and commerce);
- Outmoded curriculum;
- Use of obsolete equipment;
- Inability or unwillingness of institutions or their staff to adapt to changing needs and circumstances;
- Wrong reasons for training, such as "keeping the youth off the streets";
- Inadequate feedback mechanisms.

What is the way forward? First, the Ministry of Manpower Development and Employment should establish a functional and vibrant unit to forecast future demands and size of the labour market. Second, the training institutions need to put in place a system of labour market monitoring, for instance in the form of employer surveys and student tracer (follow-up) studies to establish the skill requirements of the labour market. Last, but not the least, training institutions need to establish linkages with employers and trade unions. Such partnerships could lead to a curriculum derived from the requirements of the world of work, provision of financial or material support and the promotion of the industrial component of training including industrial attachment of both students and teachers. In addition to these, such partnerships could facilitate the recruitment of part-time staff from industry. Indeed, in a recent study by JICA, 70% of the industries expressed their willingness to allow their staff to teach on part-time basis in TVET institutions (Budu-Smith & Acquaah-Harrison, 2004). These part-time staff should be given attractive incentive packages.

Lack of Information and Communication Technology (ICT) in the Curriculum

Today, the world is experiencing information revolution which brings greater challenges. Wealth creation has become knowledge based. In a world that is being radically transformed by Information and Communication Technology (ICT), it is imperative to include ICT in vocational and technical education programmes. Yet, ICT is not part of the curriculum of vocational and technical education in the country. We must however, acknowledge that the country's policy document on ICT " The Ghana ICT for Accelerated Development [ICT4AD] Policy" has given the assurance of government's commitment to "promote technical and vocational training with emphasis on the use of ICTs to facilitate the training and learning process" (Republic of Ghana, 2003, p. 32). I

long to see the day when ICT training will be fully integrated into the curriculum of vocational and technical institutions and made an examinable subject. Even before that day comes, principals, curriculum developers and teachers of vocational and technical programmes must familiarize themselves with ICT so that they can easily have opportunities to update and upgrade their knowledge and skills. This would impact positively on the quality of training students receive. Additionally, students see these people as role models and their endorsement of ICT would definitely motivate the students to fully embrace it when introduced.

Conclusion

Vocational and technical education could be made to play a vital role in wealth creation in the country. For this to happen, we need to give it special attention and also address certain critical issues such as:

- Lack of comprehensive national policy on vocational and technical education.
- Inadequate funding.
- Lack appropriate equipment and facilities
- Lack of entrepreneurship education and self-employment courses in the curriculum of vocational and technical education.
- Mismatch between demand and supply of skills.
- Lack of state involvement in apprenticeship/skills training
- Lack of Information and Communication Technology (ICT) in the curriculum of vocational and technical education.

Government has expressed its commitment in the White Paper to make a major shift in emphasis on its policy on education towards the provision of TVET. This shift in policy must be reflected in the approval of the Draft National Policy on TVET, completion of the 20 VOTEC Resource Centres, rehabilitation of all public TVET institutions and the establishment of new ones in all the districts.

Mr. Chairman, Distinguished Ladies and Gentlemen, I invite you all to further deliberate on these issues. I have no doubt in my mind that if the issues are addressed as suggested in this presentation, vocational and technical education could lead the way to accelerated wealth creation in the country.

I thank you for the invitation and your attention.

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